HANDBOOK ON

LIBERALISATION OF PROFESSIONAL SERVICES THROUGH MUTUAL RECOGNITION IN ASEAN:

SURVEYING SERVICES

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LIBERALISATION OF PROFESSIONAL SERVICES
THROUGH MUTUAL RECOGNITION IN ASEAN:

SURVEYING SERVICES

The ASEAN Secretariat
Jakarta

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This publication was developed with the intention of facilitating the understanding of the liberalisation of professional services through mutual recognition agreements in ASEAN. The publication does not reflect the views of the Parties to the Agreement (ASEAN Member States), the ASEAN Secretariat or AADCP II. As a Handbook, it does not form part of the agreements and does not provide or intend to provide any legal interpretation of the agreements. Neither the ASEAN Secretariat nor AADCP II accepts any liability for any claims, loss or expenses that may arise from the use of information in this publication. To ease understanding, some examples have been provided but these are mere illustrations and do not provide judgment nor constitute commercial advice. Views or conclusions may have also been expressed but these should not be taken as legal or commercial advice

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01.

INTRODUCTION

The Handbook "LIBERALISATION OF PROFESSIONAL SERVICES THROUGH MUTUAL RECOGNITION IN ASEAN: SURVEYING SERVICES" is one of four Handbooks published by the ASEAN Secretariat to provide guidance on the liberalisation of professional services in ASEAN. Three other Handbooks in this series deal respectively with the engineering, architecture and accountancy professions.

The Handbook is an important tool to disseminate information and create greater understanding of the liberalisation of the trade in surveying services within ASEAN.

Through the Handbook, ASEAN surveying professionals will be able to obtain information on how to qualify and practice as a surveyor, either as an employee, through collaborations or through the setting-up of commercial presence, in all ASEAN Member States (AMS).

The ability of surveyors to move beyond national borders within ASEAN will assist ASEAN to accelerate the objective of the ASEAN Economic Community (AEC) in 2015. Under the AEC, the ability of surveyors to provide services beyond national borders is facilitated by the ASEAN Framework Agreement on Trade in Services (AFAS) 1995[1] and the Framework Arrangement for the Mutual Recognition of Surveying Qualifications (2007). The MRA is one of the important tools to increase the level of liberalisation of cross-border trade in surveying services in ASEAN.

AFAS, which adopts the core structure and substantive provisions of the General Agreement on Trade in Services (GATS) of the World Trade Organisation (WTO), defines cross-border trade in services as consisting of four modes of supply depending on the territorial presence of the supplier and the consumer at the time of the transaction.

Pursuant to Article I:2 of GATS, the four modes of supply of services featured under AFAS are:

a. from the territory of one Member into the territory of any other Member (Mode 1 - Cross border trade);
b. in the territory of one Member to the service consumer of any other Member (Mode 2 – Consumption abroad);
c. by a service supplier of one Member, through commercial presence, in the territory of any other Member (Mode 3 - Commercial presence); and
d. by a service supplier of one Member, through the presence of natural persons of a Member in the territory of any other Member (Mode 4 - Presence of natural persons).

[1] As the main legal document facilitating the liberalisation of trade in services among AMS, AFAS aims to (1) enhance cooperation in services among AMS; (2) improve the efficiency and competitiveness of ASEAN services industries, diversify production capacity and supply, and distribution of services; (3) eliminate substantial barriers to trade in services; and (4) liberalise trade in services by expanding the depth and scope of liberalisation beyond those undertaken under the General Agreement on Trade in Services (GATS) of the World Trade Organization (WTO).

Box 1: Examples of Four Modes of Supply

Mode 1: Cross border
A user in country A receives services from abroad through its telecommunications or postal infrastructure. Such supplies may include consultancy or engineering drawings.

Mode 2: Consumption abroad
Nationals of county A go abroad as tourists, students, patients or clients to consume services delivered in country B.

Mode 3: Commercial presence
The service is provided within country A by a locally-established affiliate, subsidiary, or representative office of a foreign-owned company.

Mode 4: Movement of natural persons
A foreign national provides a service within country A on a temporary basis as an independent supplier (e.g., consultant) or employee of a service supplier (e.g. consultancy firm, construction company).

Commercial linkages may exist among all four modes of supply. For example, a foreign company established under mode 3 in country A may employ nationals from country B (mode 4) to export services cross-border into countries B, C etc.

Box 1: Four Modes of Services

To facilitate the movement of individual professional service providers (natural persons) from one AMS to another, AMS entered into the ASEAN Agreement of the Movement of Natural Persons (MNP Agreement) signed on 19 November 2012 in Cambodia.

The MNP Agreement covers temporary entry of skilled workers, professionals and executives. The scope of the MNP Agreement is limited to business visitors, intra-corporate transferees, and contractual service suppliers and is subject to the commitments made in the Schedule of Commitments of individual AMS. The MNP Agreement does not cover professional service providers who seek permanent access to the labour market of another AMS.

The Handbook is arranged in the following manner. Part 2 of the Handbook discusses the definition of mutual recognition and MRAs, models of mutual recognition and MRAs in several jurisdictions, and MRAs on surveying services at international level.

Part 3 of the Handbook provides an overview of the requirements to qualify as surveyor, to set-up a surveying practice and requirements for foreigners to qualify and practice as a surveyor in all AMS. Part 4 analyses various issues surrounding the liberalisation of surveying services in ASEAN, with particular attention on the setting-up of surveying firms or commercial presence and employment and movement of foreign surveyors.

Part 5 of the Handbook provides several proposals for reform of the liberalisation of surveying services in ASEAN and offers a few concluding thoughts.

02.

MUTUAL RECOGNITION IN SURVEYING PROFESSION

2.1. Defining MRAs

An important element of the liberalisation of surveying services is the ability of qualified surveying professionals from one jurisdiction (home country) to practice in another jurisdiction (host country). The ability to practice in different jurisdictions may be achieved through several means. These may include the unilateral recognition of qualifications and experience, the harmonisation of qualifications and the mutual recognition of qualifications and experience.

Mutual recognition agreements are contractual arrangements subject to which countries, standards agencies or professional organisations (e.g. licensing bodies) agree to recognise the equivalence of another country's technical regulations (or conformity assessment procedures)[2], sanitary or phytosanitary measures[3] or, in the case of natural persons, their academic or professional qualifications such as the ASEAN Mutual Recognition Agreements on Engineering, Architecture or Accountancy services. Thus MRAs are trade-facilitative instruments negotiated and concluded - often in support of market access commitments - that reduce the costs and time that would otherwise be required to obtain product approvals or certification of professional qualifications.

As a practical matter, MRAs establish the conditions subject to which a body of foreign rules and requirements and the procedures for verifying compliance with them will be recognised as equivalent by the parties to the agreement, for the purpose of assuring market regulators and consumers in the importing (host) country that imported products or service suppliers from another MRA signatory are safe or meet accepted minimum expectations in terms of integrity and quality.

Exporters of such goods and services benefit from the conditional recognition such MRAs provide, while market regulators in the importing state essentially agree to forego any further testing or impose additional compliance requirements on the imported goods' or foreign service suppliers.

Put another way, MRAs are the means by which one derogates from the "when in Rome, do as the Romans" principle so that producers and service suppliers do not need to comply with the technical regulations and professional qualification requirements of the country to which they wish to export or provide their services respectively.[4]

With the long-established trend of a shift in the incidence of market access barriers from border measures (such as tariffs and quotas) to behind the border policies (particularly domestic regulation), mutual recognition is increasingly viewed as an important corollary to trade and investment liberalisation in the absence of regulatory harmonisation or marked regulatory convergence. In the wake both of the creation of the WTO's GATS and, more importantly still, the post-Uruguay Round explosion of preferential trade agreements concluded at the bilateral and regional levels, MRAs have become an established, albeit arguably still largely underused, instrument of market integration in today's trade policy landscape.

MRAs serve as a substitute for full-blown regulatory harmonisation, allowing for market access commitments to be operationalised for the covered goods and services while preserving "regulatory diversity" and allowing different governments to achieve various policy objectives in accordance

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[2] See for example the Agreement between the European Community and the United States of America on the Mutual Recognition of Certificates of Conformity for Marine Equipment, available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:150:0042:0086:EN:PDF (visited on 15 March 2014).

[3] See for example Art. 4.2 of the WTO Agreement on Sanitary and Phytosanitary Measures which states "Members shall, upon request, enter into consultations with the aim of achieving bilateral and multilateral agreements on recognition of the equivalence of specified sanitary and phytosanitary measures".

[4] Nicolaidis , K. A., & Shaffer , G. (2005). Managed Mutual Recognition Regimes: Governance Without Global Government. Law and Contemporary Problems, 3.

with their own priorities and policy objectives.[5] Concluding an MRA does not necessarily imply that the regulations that apply to products or service suppliers (natural persons practicing regulated professions) are to be brought into explicit alignment either upon conclusion of the agreement or at any time in the future, but that instead, the products and service suppliers of the other party or parties to the MRA will be deemed equivalent to the goods or service suppliers of national (domestic) origin.

This section of the Handbook discusses the various issues that arise in connection with MRAs concluded for the purpose of facilitating the free movement of natural persons providing professional services. It also takes up a number of political economy considerations and domestic regulatory frameworks that inevitably create the need for a policy instrument able to fulfill the functions performed by MRAs.

2.1.1. Trade Barriers Affecting the Movement of Natural Persons

MRAs represent a means to reduce the cost of entry into foreign services markets by releasing foreign service suppliers from the - often onerous - burden of re-qualifying in the target market (by meeting additional educational or training requirements) as well as facilitating the means by which they can produce evidence confirming that they fulfill licensing and qualification requirements in the host country market. MRAs are thus a way to reduce transaction costs and represent a flanking measure necessary to operationalise market access commitments usually made in the context of a broader economic integration initiative or drive towards greater trade and investment liberalisation.

Access to many services markets, particularly for foreign service suppliers, is conditioned by policy interventions that are often taken by domestic regulators having little regard for - or even awareness of - the market access implications of their actions, particularly since such regulators will typically be motivated by a wholly different set of policy objectives than those pertaining to trade liberalisation.

In terms of measures impeding the ability of natural persons to provide their services abroad, some of the most common barriers are constituted by immigration or labour market restrictions or a failure by domestic regulatory bodies to recognise, in part or in full, the academic qualifications or professional accreditation of the foreign service supplier in question. Nationality or residency requirements may equally inhibit cross-border trade in professional services, as do measures that restrict the eligibility of service suppliers to contest public tenders (government procurement contracts).[6] Many of these restrictions stem from concerns by market regulators to protect consumers or achieve other societal or ethical objectives, and will often be rooted in prevailing information asymmetries between suppliers and consumers.

2.1.2. Regulated Professions and Professional Licensing

The core concept underlying MRAs governing the movement of natural persons and their economic freedom to practice their professions (provide services) in a country other than the one in which they obtained their qualifications, is the concept of professional licensing. By the same token it is important to recall that not all professions are licensed or subject

[5] Maur , J.-C., & Chauffour , J.-P. (2011). Beyond Market Access . In J.-C. Maur, & J.-P. Chauffour, Preferential Trade Agreement Policies for Development: A Handbook (pp. 17-36). The International Bank for Reconstruction and Development / The World Bank, 26.

[6] Hurford, K. (2003). Going Global: The case for enhancing global trade in professional services . Engineers Australia, 13.

to regulatory oversight. The extent and societal implications of information asymmetries between service suppliers and consumers play an important role in determining whether a given profession is likely to be licensed or regulated; the idea being that for professions involving a high level of technical complexity, it is essential that some form of organisation operate to certify practitioners who meet minimum standards in terms of theoretical knowledge and practical expertise (the most obvious and commonly cited examples of which are the medical and legal professions), because left to themselves consumers would not otherwise be able to distinguish between good and bad practitioners and the cost (and time) involved in amassing the information required to make such a distinction would be excessive.[7]

Regulated professions are generally distinguished from other forms of professional activity in that they tend to be predicated on a very specific body of intellectual knowledge, usually obtained by means of completing a tertiary academic (or vocational) degree, which is then reinforced with one or more years of practical experience - often as a trainee and under the supervision of a more senior qualified professional - before one is finally certified to practice the profession independently and under one's own liability - i.e. essentially given a license to offer these services on one's own account.

Regulated professions generally have an established path to accreditation that all persons wishing to practice must complete, with admission to the profession (and thus such accreditation) generally administered by a licensing body or professional association to whom powers to regulate the profession have been delegated by the State in pursuit of a generally perceived public interest, or in order to maintain a given set of professional and ethical standards. The range of accredited professions was historically quite narrow, encompassing medicine and law in most countries. The range of regulated professions has grown in conjunction with the observable trends of increased labour-market complexity and specialisation.

There are also a limited number of professions that are generally accredited or regulated across a broad swathe of countries, in such fields as law, accountancy, engineering, surveying, health care, and architecture to name just a few, while other countries leave some professions unregulated where others have recently (i.e. in the last few decades) established licensing or at least regulatory oversight, such as for asset managers, social workers, urban planners or even taxi drivers.[8] Boiled down to its essence, licensing a profession essentially limits access to anyone not duly authorised to practice it. This may have the effect of limiting supply and thereby lead to upward pressure on prices for the services in question. In turn, this may also create an interest by those already admitted to practice the profession in question to "capture" the licensing agency or process with a view to making admission relatively onerous for new entrants in order to further limit supply. It is precisely for this reason that professional licensing has come under increasing scrutiny when administered in a way that is potentially anti-competitive or protectionist.

The above discussion highlights some of the tensions that are inherent to the process of professional licensing and which involve a balancing act between achieving those legitimate public policy objectives for which licensing was established and the desire to

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[7] See in particular Mavroidis, P. C., & Marchetti, J. A. (2012). I now recognize you (and only you) as equal: an anatomy of (mutual) recognition agreements in the GATS. In I. Lianos, & O. Odudu, *Regulating Trade in Services in the EU and the WTO, Trust, Distrust and Economic Integration* (pp. 415-444). Cambridge University Press.

[8] Some of these examples are taken from Mavroidis, P. C., & Marchetti, J. A. (2012). I now recognize you (and only you) as equal: an anatomy of (mutual) recognition agreements in the GATS. In I. Lianos, & O. Odudu, *Regulating Trade in Services in the EU and the WTO, Trust, Distrust and Economic Integration* (pp. 415-444). Cambridge University Press.

maintain competitive, open and affordable services markets. Looked at from a trade policy perspective, this is clearly an area where foreign service supply can play an important role, and where MRAs become key policy instruments, in resolving the above tensions.

2.1.3 Trade Rules and MRAs

Rules governing MRAs are addressed by GATS Art. VII (Recognition), which sets out a number of substantive rights and obligations that WTO Members must follow when conferring recognition, whether such recognition is granted autonomously or arises in the context of reciprocal MRAs. One important dimension of Article VII is that it is situated in Part II of the GATS, entitled General Obligations and Disciplines. This means that the rights and obligations under Article VII apply to all WTO Members regardless of whether or not they have scheduled specific commitments in any given (professional) service sector. Equally important is the fact that Article VII constitutes an agreed exception from the GATS' most favored nation treatment principle (found in GATS Article II), such that WTO Members can engage in MRA activity on a selective basis and not extend recognition privileges to all other members immediately and unconditionally. One important obligation set forth in Article VII is found in paragraph 2, which requires a Member to afford adequate opportunity for (any) other interested WTO Members to negotiate accession to an existing MRA it has already concluded covering authorisation, licensing or certification of service suppliers, or to allow other WTO Members to negotiate similar MRAs with it. Such a form of open preferentialism sets Article VII apart from GATS Article V governing the establishment of preferential trade agreements and allowing Parties to them to withhold benefits from third countries.

GATS Article VII:4 sets out a number of procedural obligations requiring WTO Members to notify the Council for Trade in Services of existing recognition measures, of when they intend to initiate negotiations towards an MRA, or when they adopt new recognition measures or amend existing ones. These are important transparency obligations intended to afford broad access to all WTO Members interested in entering into such an MRA with a view towards multilateralising existing recognition arrangements to the greatest extent possible. Finally, Article VII:5 mandates WTO Members to work together towards the "establishment and adoption of international standards for the practice of relevant services trade and professions". To date, this has only been tackled at the WTO level in the area of accountancy services.[9]

The open nature of GATS Article VII has generated relatively little uptake among WTO Members who have preferred to conclude MRAs within the more fully hermetic confines of preferential trade agreements (such as ASEAN's AFAS) subject to the generally weaker disciplines of GATS Article V, thereby largely freeing them from the requirements set forth in Art. VII. In practice, most WTO Members that have entered into MRAs with preferential trade partners have notified such arrangements under GATS Art.V instead of GATS Art. VII. This has allowed them to avoid the requirement to first notify the MRA in question under GATS Art. VII and to subsequently afford other any interested WTO Member the chance to accede to such arrangements or negotiate similar MRAs with the Members in question.[10]

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[9] See http://www.wto.org/english/tratop_e/serv_e/accountancy_e/accountancy_e.htm (visited on 20 March 2014).

[10] Some scholars have questioned the legality under WTO provisions of this approach. See in particular Mavroidis, P. C., & Marchetti, J. A. (2012). I now recognize you (and only you) as equal: an anatomy of (mutual) recognition agreements in the GATS. In I. Lianos, & O. Odudu, Regulating Trade in Services in the EU and the WTO, Trust, Distrust and Economic Integration (pp. 415-444), Cambridge University Press.

2.1.4. Multilateral Recognition Agreements and Preferential Trade Liberalisation

As noted above, a large number of MRAs have not been notified under GATS Art. VII but rather concluded under GATS Art. V on economic integration agreements. It is now commonplace that PTAs covering services feature substantive provisions embedding explicit MRA negotiating mandates across various professions.

Preferential Trade Agreements (PTAs) take varying approaches to extending recognition to preferential trading partners. Some of the more ambitious arrangements, such as those between EU Member States or between Australia and New Zealand, contain legally enforceable obligations and provide for deep integration of each country's professional services and labour markets. Others contain little more than best endeavor clauses and an undertaking to conclude arrangements on a sectorial basis at an unspecified date in the future.[11]

Much of the MRA-relevant treaty language found in PTAs tends to reiterate existing obligations of the contracting parties as WTO Members, such as the obligation not to accord recognition in a manner which would constitute a disguised restriction to trade. Also common are best-endeavour obligations aimed at getting the relevant professional associations and accreditation bodies in each contracting party to exchange information and cooperating with one another, since it is ultimately these bodies that will have to do the bulk of actual technical negotiations on what substantive criteria and procedural requirements will need to be met in order to grant recognition.

This is even truer in countries characterised by federal systems of governance, such as Canada or the United States, where the federal government negotiating trade treaties does not have competence over the regulation of professional services, hence needs to delegate such authority to provincial or state governments who in turn delegate it to professional licensing bodies.

Also common in many PTAs are guidelines or framework provisions that expound a certain number of basic principles that Parties to MRA negotiations should consider in the context of their recognition discussions. Such guidelines are meant to help licensing bodies in their MRA work and typically cover issues such as academic curriculum, training and experience requirements, licensing fees, continuing education requirements, language and other context-specific requirements, scope of practice limitations, bonding requirements for cross-border supply, temporary licensing regimes, ethics regimes, etc.

2.2. Negotiating a Mutual Recognition Agreement

Negotiating an MRA, regardless of the scope or the depth of the recognition envisaged, is always a time-consuming activity requiring a great deal of mutual information sharing, and probably months (or even years) of actual negotiations. For such negotiations to proceed, each party must have a domestic system in place for regulating the profession in question, which will normally be tasked with upholding quality standards, protecting consumers, and ensuring a sufficient number of licensed professionals are operating on the market at any given time (ensuring supply). Even where such domestic licensing systems are well established and operating at an advanced level, the job of actually comparing their compatibility, identifying possible lacunae and agreeing on ways

[11] See OECD. (2003). Service Providers on the Move: Mutual Recognition Agreements. Organization for Economic Cooperation and Development, Working Party of the Trade Committee. OECD.

to address such lacunae, is not likely to be a straightforward analytics exercise but will inevitably involve value judgments and subjective perceptions and evaluations of equivalency.

When governments try to establish frameworks and guidelines for the negotiation of MRAs, they can often do little more than encourage the professional associations within their territories to enter into such talks and (hopefully) conclude the desired MRAs in a reasonable period of time. Governments have little leverage to force professional associations to comply, except the threat of withdrawing the statutory powers delegated to such bodies. It is ultimately up to the professional associations and their members to decide just how enthusiastically they wish to embrace such talks, and this will depend, more than any other factor, on the offensive and defensive interests of their members.

In professions with a high degree of international mobility and the prospect of employment opportunities overseas, members of professional associations may be more pro-active in seeking to open up potential export markets for their services by concluding MRAs that give them access to those markets. In professions where local members already feel besieged by competition or are well aware of unfavourable prevailing price differentials between their services and those of foreign suppliers, there is likely to be little enthusiasm for negotiating and concluding an MRA that will only exacerbate an already difficult situation for them.

Nevertheless, professional associations clearly have a lot of discretion and leeway in negotiating such agreements, particularly in formulating how incentives are calibrated for foreign entrants. Some market segments or regions of the host country in question may be of little interest to foreign suppliers, such that fears over the competitive threat posed by new entry may often prove excessive. What's more, because entry of foreign skilled professionals is always contingent on parallel (negotiated) decisions to grant temporary access to foreign professionals under Mode 4 commitments, host countries have important means at their disposal to regulate the actual level of foreign entry.

It is important to recall the fact that MRAs are inherently reciprocal in character, hence ultimately aim to promote and facilitate the circularity of two-way movement among communities of professionals, thereby allowing repeat interaction, the building of trust among regulatory agencies, affording enhanced scope for collaborative business ventures among private representatives (including professional associations) and partnerships between those institutions of higher learning that are responsible for training providers of professional services.

The existence of genuine market access opportunities abroad (or the scope of heightened inflows of foreign direct investment consecutive to a trade agreement) will often play a key role in determining how openly and enthusiastically professional licensing bodies embrace the chance to negotiate mutual recognition arrangements to the benefit of their own members, while on the other hand opening up new market access opportunities on their members' domestic market to competition from foreign service suppliers. This requires both an understanding of the potential gains and possible losses (cost -benefits analysis), as well as the ability to formulate negotiating positions that will ultimately translate into compromises that do justice to such an analysis. However, care is needed to temper oft-expressed fears over the potentially dislocating character of liberalised trade in professional services, as foreign professional service firms often resort to partnerships with local firms or professionals in navigating what can be for many of them uncharted territory. MRAs may thus just as well heighten competition as they may offer useful scope for deeper forms of business collaboration between professionals from partner countries.

MRAs can also be harnessed by policymakers as a useful tool to overcome supply-side constraints in domestic services markets where there is a perceivable shortage of trained and qualified professionals, and can be used to inject much-needed competition and innovation where such

markets have otherwise become static or sluggish. MRAs can also be used as a public policy tool to address skills shortages that arise in the face of evolving demographic realities that are otherwise not being addressed by available domestic manpower, such as in the health care professions and the rapidly aging populations in more advanced industrial economies.

Because MRAs involve highly skilled activities, they can afford useful opportunities to each country's education authorities and to institutions of higher learning to collaborate in a range of higher education areas, from curriculum development to faculty and student exchanges as well as the establishment of joint degree programs and joint research endeavours. Such collaboration may also entice prominent foreign investors, who are often important conduits for foreign and local professional service supply, to invest in the creation of academic chairs in specific fields of professional practice.

Summing up, MRAs can generate several benefits to signatories: (i) they can provide enhanced access to the markets for professional services of Parties to the MRA; (ii) provide a way for the importing country to make better use of imported skills and increase its comparative advantage in certain professional fields; (iii) allow the various regulatory bodies involved in granting rights to practice on a case-by-case basis to save time and resources by working together and engaging in a more effective division of labour; and (iv) enhance mutual learning and the transmission of regulatory experience, thus raising professional standards as well as the level of access to professional services among Parties. The process leading to an MRA such as the discussion and negotiations can constitute a stimulus for internal regulatory reform and the necessary adaptation of the professions to changing economic, educational, technological and social circumstances.

2.3. Mutual Recognition Models

There are four models of mutual recognition of qualifications of professional services, the EU Model, the NAFTA Model, the GATS Model and the Trans-Tasmanian Model.[12]

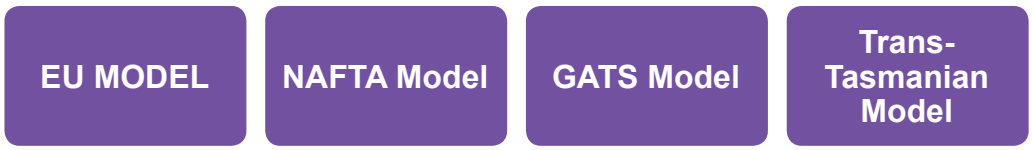

Figure 1: Models of MRAs

2.3.1. The EU Model

Under the EU model, an MRA normally provides a broad coverage through general recognition and the special recognition systems together with a strong enforcement system for non-compliance by the member states.

The main underlying principles governing the EU MRA is to further enhance the participation of the EU's citizens under the freedom of establishment and freedom to provide services. Freedom of establishment relates to Mode 3 whereas freedom to provide services relates to Mode 1 and Mode 4.

[12] Eva Hartmann, The role of qualifications in the global migration regime University of Lausanne GARNET Working Paper No: 39/08 April 2008.

Mutual recognition within the EU was first mentioned in the Treaty of Rome in relation to the professional services and the mutual recognition of diplomas in the common market. Article 3(c) of the Treaty of Rome states the need to "the abolition, as between Member States, of obstacles to freedom of movement for persons, services and capital" in order to assist in the creation of the Common Market.

The European Court of Justice (ECJ) applied the mutual recognition principles in the recognition of equivalence in goods such as through the case of Cassis de Dijon and others.[13] The EU Model may be categorised as managed recognition, which is to ensure that "regulatory competition did not lead to consumer confusion and general downgrading of standards."[14] Managed mutual recognition in the EU does not require extensive prior harmonisation of qualifications across borders. Instead, MRA can involve variations in scope, automaticity and reversibility of access to compensate for existing differences in the ways in which professions are regulated.

The main EU legislation om mutual recognition of qualifications is the Qualifications Directive,[15] which came in force in 2007. The Qualification Directive's main aims are to encourage free movement of skilled labour around Europe; and to rationalise, simplify, and improve the rules for the recognition of professional qualifications.

The Qualifications Directive streamlined 15 legal instruments which had been in operation since 1970s and covers over 800 professions across Europe, whilst some professions such as the legal profession remain outside its scope. This means that an EU citizen with a professional qualification from one Member State should be able to move and practice in another Member State with relatively little friction.

The Qualifications Directive introduces two levels of recognition system: automatic recognition and general recognition system. The Qualifications Directive allows automatic recognition of qualifications for sectorial professions. One of the shortcomings of the EU system is that the regulators are, in general circumstances, unable to test language competence, request transcripts of training or test knowledge of applicants trained within the EU or EEA, who meet EU requirements for direct entry to the register and check any professional experience since they originally qualified, regardless of how long ago they qualified.

At the same time, the EU recognises that there is still lack of awareness of enterprises and national authorities on the existence of the mutual recognition principle.[16] The EU also recognises that there is a lack of dialogues between competent authorities in different member states. The mutual recognition system is also costing the EU and the competent authorities in certain areas such as information gathering costs, compliance costs and conformity assessment costs. It is also found that the mutual recognition sometime the costs of gaining access to the market of another Member State are nearly twice as high as for big companies as a share of total turnover.[17]

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[13] Case C-120/78, see also *German Beer Standards*, Case 178/84 (1988) 1 CMLR 780.

[14] Kalypso Nicolaidis and Susanne Schmidt, Mutual Recognition 'on trial': the long road to services liberalisation,' Journal of European Public Policy 14:5 August 2007: 717-734.

[15] The Directive 2005/36/EC on recognition of professional qualifications was adopted on 7 September 2005, consolidating 15 Directives, 12 Main (Sectorial) Directives and three General System Directives into a single text.

[16] European Commission, Executive Summary of Impact Assessment, Accompanying document to the Proposal for a Directive of the European Parliament and The Council of Ministers, 3052/95/EC, COM(2007) 36 final.

[17] European Commission, Executive Summary of Impact Assessment, Accompanying document to the Proposal for a Directive of the European Parliament and The Council of Ministers, 3052/95/EC, COM(2007) 36 final.

2.3.2. NAFTA Model

Under the NAFTA Model, which is implemented in NAFTA countries and countries having PTAs with NAFTA countries, recognition is not included in the main agreement or framework but delegated to the various organisations or professional bodies.

NAFTA provides for the free movement of professional and business persons under the Mode 4. Under Chapter 16 of NAFTA, four categories of business persons and professional service providers, such as accountants, architect with credentials, land surveyors and engineers that meet the minimum standard set by NAFTA Countries can enter each member country temporarily to conduct business. The nationals of each country are required to comply with the applicable licensing or certification requirement regarding professions of the host country.

Under NAFTA, professionals are exempt from the job validation process normally imposed on those seeking work. The professional must be a recognised professional, must meet the educational requirements of the occupation, have a pre-arranged employment or contractual agreement with an entity located in the host country; and meet the host county's requirements for temporary entry.

2.3.3. GATS Model

Under the GATS Model the recognition mechanism is delegated to the relevant professional bodies and the countries to adopt. As discussed above, GATS addresses MRA in Article VII, which provides for the right to recognise the education or experience obtained, requirements met, or licences or certifications granted in WTO members. Recognition can be accorded autonomously or can be based upon an agreement or arrangements between members.

Under Article VII.3 of GATS, a Member State must not accord recognition in a manner which constitutes a means of discrimination between the parties of such an agreement when applying its standards or criteria for the authorisation, licensing or certification of service suppliers, or a disguised restriction on trade in services. This means that a Member State will have to apply the same standards to professional service providers from all Member States.

In the event that a Member State enters into an MRA with another Member State, the Member States must afford adequate opportunity for other interested Member States to accede to the MRA or to negotiate comparable ones. Where Member States accord recognition autonomously, they are requested to afford adequate opportunity for any other Member States to demonstrate that education, experience, licences, or certifications obtained or requirements met in that other Member's territory should be recognised.

Article VI.6 requires Member States to provide adequate procedures to verify the competence of professionals of other Member State where they have undertaken specific commitments regarding professional services. Article VI.3 requires WTO members to ensure that competent authorities consider the application of a foreign service-provider seeking authorisation within a reasonable time. At the request of the applicant, the competent authorities shall provide information on the status of the application without undue delay. In addition, WTO Member States are required to make remedy available against the decision of their competent authorities.

2.3.4. Trans-Tasmanian Mutual Recognition Agreement

The Trans-Tasmanian Mutual Recognition Agreement or TTMRA was signed between Australia and New Zealand in 1992 and came into effect in 1997. The TTMRA requires professionals to pass an 'equivalence test', without the need to spell out common standards and requirements for training.[18]

TTMRA contains provisions enabling registration authorities to impose conditions on registration to achieve equivalence between occupations. The relevant registration authority determines what conditions should be imposed based on its assessment of whether the activities authorised to be carried out under registration in the respective jurisdictions are substantially the same. These conditions may comprise the limiting of activities authorised by registration subject to the completion of further relevant training.

TTMRA covers, among others, all registrable occupations, except medicine, which is subject to a different type of arrangement. TTMRA provides that a person registered to practice an occupation in Australia is entitled to practice an equivalent occupation in New Zealand, and vice versa, without the need for further testing or examination but subject to the need to notify the local registration authority.

Under the Australian Mutual Recognition Act, registration is defined as *"… the licensing, approval, admission, certification (including by way of practising certificates), or any other form of authorisation, of a person required by or under legislation for carrying on an occupation."*[19]

To apply for registration under TTMRA, individuals must forward written details of their registration in their home jurisdiction to the registration board in the second jurisdiction and sign a consent form enabling the registration board to undertake reasonable investigations relating to their application. The notice must be accompanied by a person's registration papers or include a copy and a statement certifying that the papers are authentic. The statements and other information contained in the notice must also be verified by statutory declaration.

Registration authorities have one month from the date of lodgement of the notice to formally grant, postpone or refuse registration, failing which the person is entitled to immediate registration. When granted, registration takes effect from the date of lodgement of the notice.

A registration authority may impose similar conditions on registration to any that already apply to a person's original registration or which are necessary to achieve equivalence between occupations. Individuals should be advised in writing if conditions on registration are to be imposed. The registration authority is required to advise the person of his or her right to appeal to the relevant Tribunal against the decision. The person may also seek a statement setting out the registration authority's reasons in full.

If a person's initial registration is cancelled, suspended or subject to a condition on disciplinary grounds, or as a result of or in anticipation of criminal, civil or disciplinary proceedings,

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[18] Kalypso Nicolaidis and Susanne Schmidt, Mutual Recognition 'on trial': the long road to services liberalisation,' Journal of European Public Policy 14:5 August 2007: 717-734.

[19] Mutual Recognition Act 1992, s. 4.1.

then the person's registration under the TTMRA is affected in the same way. However, a registration body may reinstate any cancelled or suspended registration or waive any conditions if it thinks it appropriate in the circumstances.

2.3.5. International MRA for Surveying

A number of mutual recognition agreements have been established between professional or industry associations, mainly in internationalised professions including surveying. The arrangements often entails international standards, which are non-binding and considered "good practice" for education and professional skills, guidelines for assessing professional capabilities and competence guidelines for members.

For the surveying profession, the International Federation of Surveyors (FIG) promotes the principle of mutual recognition of professional qualifications by encouraging communication between professional organisations to ensure a better understanding of how surveyors acquire their qualifications in different countries.

The FIG defines a surveyor as *"….A professional person with the academic qualifications and technical expertise to practise the science of measurement; to assemble and assess land and geographic related information; to use that information …"*[20]

The Task Force for Mutual Recognition, which was set up in 1998 published its result in 2002 in "FIG Publication No. 27 – Mutual Recognition of Professional Qualifications."[21] In April 2002, the General Assembly of the FIG adopted a Policy Statement on Mutual Recognition of Professional Qualifications prepared by the Task Force on Mutual Recognition of Professional Qualifications.

The Task Force has developed a methodology for implementing mutual recognition of surveyors, supports professional organisations where difficulties are identified in achieving mutual recognition, and encourages efforts at the national level to remove such difficulties. At the same time, a working group has been established to improve knowledge and available information about relevant aspects of professional education, in order to implement the process of mutual recognition of professional qualifications.

The methodology proposed by the Task Force and adopted by FIG states:

1. The applicant is a fully qualified professional in the home country where the professional qualification was gained.
2. The individual's competence to work in another country (the host country) needs to be assessed.
3. For the purposes of facilitating professional mobility, it is necessary to recognise and accept the professional status and the competence of the applicant in the home country. For the professional organisation in the host country it is necessary merely to ensure that the applicant is competent to undertake surveying, as practised in that host country.
4. It must be ensured that the applicant is fully aware of and has adapted to the nature and practice of the surveying profession in the host country. It is therefore necessary for the professional organisation in the host country to establish the nature and level

[20] See International Federation of Surveyors website, www.fig.org.

[21] The Task Force members were Prof. Stig Enemark (Denmark) (Chair); Dr. Frances Plimmer (UK), Professional Secretary; Dr. Tom Kennie (UK), Vice President of FIG; Prof. John Parker (Australia), Chair of FIG Comm 1; Prof.Pedro Cavero (Spain), Vice-Chair of FIG Comm 2; Prof. David Coleman (Canada); Prof. Heinz Ruther (South Africa); Dr. Vaclav Slaboch (Czech Republic) and Teo Chee Hai (Malaysia).

of professional competencies within a range of surveying activities required of a fully-qualified professional in the host country and to assess the applicant against that content and standard of professional competence.

5. The pre-conditions for managing this process of mutual recognition are as follows:
   a. An individual must be professional qualified in the home country;
   b. A similar profession must exist in the host country;
   c. A representing organisation must exist in the host country; and
   d. Political will must be available to support the process

The process of assessment of professional competence must reflect:

1. the nature of the profession in the host country (threshold standards of professional competence);
2. the nature of the professional education and training of the surveyor (applicant) up to the point of application; and
3. the professional status of the surveyor (applicant) up to point of application.

The Task Force proposed that mutual recognition can easily be facilitated and implemented if the various authorities recognise the "surveying culture" in identifying the threshold standards of professional competence to be fulfilled by the applicant. The Task Force recognised that the surveying profession has developed in different ways and encompassed different surveying activities in different countries due to different national needs. This is because professional activities in surveying profession are diverse and may not be performed by all members of the "surveying profession" in all countries. Some countries regulate certain parts of the activities whilst other countries do not have any regulations in the same areas.

The Task Force recognised that in the light of the terms of the EU Directive and the implications of the WTO proposals, the ability of surveying professionals to work in other countries must depend on:

1. the existence of a "corresponding profession" i.e. the extent to which the academic education and professional training and experience gained in their "home" country matches the surveying activities comprised in the surveying profession in the "host" country to which they seek access; and
2. the amount of additional academic and/or professional education, training and experience which they require to demonstrate competence in the range of surveying activities comprised in the surveying profession in the "host" country to which they seek access.

The Task Force recognises several issues on the mutual recognition of surveying profession. They include:

1. The difficulties in defining "professional competence". It is suggested (Kennie et. al., 2000) that for newly-qualified surveyors "professional competence" combines knowledge competence, cognitive competence and business competence with a central core of ethical and/or personal behaviour competence.
2. The role of the professional organisations as the Task Force recognised that there are different roles undertaken by professional organisations, such as award professional qualifications; award practicing licenses; regulate the conduct and competence of surveyors; and represent surveyors and their interests to external bodies including national governments. Some countries may even have more than one professional organisations.

The Task Force suggested that cultural differences need to be recognised in order to understand and accept that surveyors in different countries have different perceptions as to the nature of professional practice and the routes to professional qualifications.

Thus, the FIG Council at its meeting in Seoul in 2001 adopted the Policy Statement on the Mutual Recognition of Professional Qualifications. The Statement states that "The International Federation of Surveyors (FIG) recognises the importance of free movement of surveyors in a global marketplace. The mutual recognition of professional qualifications provides a means whereby professional qualifications held by individual surveyors can be recognised by individual professional organisations as comparable to those acquired by their own national surveyors.

FIG will promote the principle of mutual recognition of professional qualifications by:

1. Encouraging communication between professional organisations to ensure a better understanding of how surveyors acquire their professional qualifications in different countries;
2. Developing with professional organisations a methodology for implementing mutual recognition for surveyors;
3. Supporting professional organisations where difficulties are identified in achieving mutual recognition, and encouraging debate at national government level in order to remove such difficulties;

Working with external organisations (such as the WTO) in order to achieve mutual recognition in both principle and practice of professional qualifications for surveyors world-wide."

2.4. Mutual Recognition of Surveyors in ASEAN

2.4.1. AFAS Provisions

Mutual recognition of qualifications for professional service providers is addressed in Article V.1 of AFAS, which acknowledges the rights of the AMS to recognise the education or experience obtained, requirements met, or licences or certifications granted in an AMS without obliging it to extend the recognition to other AMS. AFAS also provides a framework for the member states to negotiate mutual recognition agreements.

ASEAN Heads of Governments agreed, at the 11th ASEAN Summit, with the decision in the 37th Meeting of ASEAN Economic Ministers ("AEM") to accelerate the liberalisation of ASEAN trade in services, by bringing forward its implementation from 2020 to 2015. The liberalisation is intended to improve the efficiency and competitiveness, diversity, production capacity, and supply and distribution of services of their services suppliers within and outside ASEAN, beyond those undertaken by AMS under the GATS with the aim to realising a free trade area in services.

The decision of the Declaration of ASEAN Concord II (Bali Concord II) adopted at the Ninth ASEAN Summit on 7th October 2003 in Bali, Indonesia, called for the completion of MRAs for qualifications in major professional services by 2008 to facilitate free movement of professionals/skilled labour/talents in ASEAN. The AEC Blueprint which was signed on 20th November 2007 also set for the negotiations for the MRAs on Surveyors.

To achieve the AEC, the Summit adopted the Recommendations of the High Level Task Force on ASEAN Economic Integration ("HLTF") which outlined a number of measures for trade in services, including:

a. Set clear targets and schedules of liberalisation towards achieving free flow of trade in services earlier than 2020, with accelerated liberalisation of priority sectors by 2010.
b. Accelerate liberalisation in specific sectors earlier than end-date through the application of ASEAN-X formula.

c. Complete MRA for major professional services including the surveying profession by 2008.

The existence and implementation of the MRAs would enable professional service providers who are registered or certified in signatory AMS to be equally recognised in other signatory AMS, hence facilitating the flow of professional services providers within ASEAN.

The ASEAN Coordinating Committee on Services (CCS) then established an Ad-Hoc Expert Group on Mutual Recognition Arrangements with the objective of realising framework agreements on mutual recognition for identified priority professional services. CCS decided to adopt the sectorial approach in developing mutual recognition arrangements for the identified professional services in ASEAN.

2.4.2. ASEAN Mutual Recognition Agreement for Surveying

The Framework Agreement for the Mutual Recognition of Surveying Qualifications (Surveying MRA) was signed in 2007.[22] The Surveying MRA is only a framework agreement providing broad principles for further bilateral and multilateral negotiations among AMS. The Surveying MRA is different from the MRAs for the engineering, architecture and accountancy professions which provide for concrete coordinating mechanisms.

The Surveying MRA is more complicated mainly due to the broader scope and definition of who may be recognised as surveyors, including those involved in land surveying and geomatics, property consultancy and valuation surveying, quantity surveying and building surveying. The complexity of the surveying profession is mainly due to several reasons:

a. rapid advancement and adoption of information and communication technology (ICT) that has significantly altered the surveying processes. Increasing and widespread development of ICT is opening up new prospects for the profession and is expected to lead to strong growth in cross-border trade (under Mode 3);
b. the profession has yet to become internationalised unlike other professions such as engineering, accountancy or legal; and
c. the surveying market is localised and not dominated by any large regional or multinational firms except for some areas such as the offshore hydrographic surveying for the hydrocarbon industry.

In the efforts to develop the Surveying MRA, AMS faced several key challenges including the lack of harmonised definition of surveying services in ASEAN and the lack of specific Central Product Classification coding except for Surface and Sub-surface Surveying and Map Making.[23]

The Surveying MRA's main objectives are:

a. to identify the framework and establish the basis for Competent Authorities to observe while negotiating MRAs. This is because ASEAN Member Countries may have different nomenclatures and requirements; and
b. to exchange information in order to promote trust and adoption of best practices on surveying standards and qualifications.

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[22] Hereinafter referred to as the Surveying MRA.

[23] Central Product Classification (CPC) system is a product classification for goods and services promulgated by the United Nations Statistical Commission.

The Surveying MRA defines a "Surveyor"[24] as a national of an AMS who has satisfactorily completed an undergraduate (degree) education at a university, college or institution in a recognised surveying program that is assessed as meeting the required criteria in a discipline of surveying services determined by a Competent Authority. Appendix II of Surveying MRA adopts the definition of "surveyor" by FIG as already discussed above.

The term "Competent Authority" refers to a designated government regulatory body or an authorised agency in charge of regulating the practice of surveying services and Registered/ Licensed Surveyors.[25]

Under the Surveying MRA, the term "Surveying Professional"[26] refers to a surveyor who has the experience or technical expertise that is assessed as meeting the required criteria determined by a Competent Authority, which must be acquired over an aggregate of not less than two years.

The term "surveying services" is defined as one or more of the activities, which may occur either *"on, above or below the surface of the land or the sea and may be carried out in association with other professionals as defined by the FIG..."*[27] According to the FIG, such activities include:

a. The determination of the size and shape of the earth and the measurement of all data needed to define the size, position, shape and contour of any part of the earth and monitoring any change therein.
b. The positioning of objects in space and time as well as the positioning and monitoring of physical features, structures and engineering works on, above or below the surface of the earth.
c. The development, testing and calibration of sensors, instruments and systems for the above-mentioned purposes and for other surveying purposes.
d. The acquisition and use of spatial information from close range, aerial and satellite imagery and the automation of these processes.
e. The determination of the position of the boundaries of public or private land, including national and international boundaries, and the registration of those lands with the appropriate authorities.
f. The design, establishment and administration of geographic information systems (GIS) and the collection, storage, analysis, management, display and dissemination of data.
g. The analysis, interpretation and integration of spatial objects and phenomena in GIS, including the visualisation and communication of such data in maps, models and mobile digital devices.
h. The study of the natural and social environment, the measurement of land and marine resources and the use of such data in the planning of development in urban, rural and regional areas.
i. The planning, development and redevelopment of property, whether urban or rural and whether land or buildings.
j. The assessment of value and the management of property, whether urban or rural and whether land or buildings.

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[24] Article 2.11.

[25] Article 2.2.

[26] Article 2.9.

[27] Article 2.10.

k. The planning, measurement and management of construction works, including the estimation costs.[28]

Those seeking recognition under the Surveying MRA must meet the following requirements:[29]

a. The applicant must have met the educational requirements in effect in the Home Country granting the original recognition at the time that such recognition was granted. Such applicant's educational credentials may be assessed by the Host Country and accepted as having satisfied the educational requirements of the Host Country.
b. There may be a need to require the applicants to pass an examination or examinations designed to assure that the applicants have satisfactory knowledge of relevant local and national legislation, standards and practices in the Host Country.
c. Applicants who have been granted recognition by the Competent Authority of the applicant's Home Country may not be required to complete the entire qualifying examination (if any) in order to qualify for recognition in the Host Country, provided that the educational and other professional requirements of the Host Country are met.
d. The completion of a minimum period of post graduating surveying experience is a requirement for recognition. The amount and nature of experience required must be equivalent to the experience requirement of the Host Country granting the recognition.
e. If either the amount or nature of the experience acquired by an applicant in the Home Country does not meet the requirements of the Host Country, the applicant may be permitted to complete prescribed experience in the Host Country before being eligible for recognition in the Host Country.

The Surveying MRA requires all AMS to ensure that any measure relating to the recognition, registration or licensing of a Surveying Professional from another AMS is competency-based. The measure should also be readily accessible or published and does not result in any unnecessary delay nor impose inequitable fees, "except as may be reasonably necessary to take into account any cost or exchange rate differentials." The registration and/or licensing of the Surveying Professionals within one AMS are subject to the AMS domestic laws, rules, regulations, national policies, standards and requirements.

Under the Surveying MRA, AMS also agree to make publicly available information on the particular processes for assessing qualifications including its adopted core competencies, criteria, standards or benchmark. Applicants may request and obtain the necessary information and documentations outlining the particular processes for assessing qualifications, including adopted competency, criteria, standards or benchmarks, from the Competent Authority of the Host Country.

AMS acknowledge and agree that the basis of recognition requirements shall be in accordance with the spirit of the standards and guidelines set out by FIG including for the purposes of professional competencies and qualifications threshold for the practice of surveying in all AMS.

The Surveying MRA does not take away the rights of the individual AMS to continue to regulate the profession. Article 4.1 provides that the Surveying MRA shall not reduce, eliminate or modify the rights, powers and authority of each AMS to set and regulate the necessary laws, rules, regulations, national policies, standards, requirements.

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[28] For the purposes of the Surveying MRA items (i), (j) and (k) of Appendix II and part of item (h) of Appendix II namely the study of social environment in the planning of development in urban, rural and regional areas are excluded.

[29] Article 3.

03.

QUALIFYING AND PRACTICING AS A SURVEYOR IN ASEAN MEMBER STATES

3.1. Introduction

The Chapter discusses the domestic laws relating to qualification and practice of surveying professionals in all AMS including conditions for Surveying Professional to set-up commercial presence in the AMS. The Chapter also outlines other measures affecting the movement of Surveying Professionals such as labour and immigration rules.

3.2. Brunei Darussalam

3.2.1. Laws and Regulations

The surveying profession in Brunei Darussalam involves cadastral survey, geodetic survey, topographical survey, title survey, mapping, geomatics, hydrographic surveying and survey plan. There are currently 22 registered Land Surveyors in Brunei Darussalam, 5 in government and 17 in the private sector.

The Land surveying profession in Brunei Darussalam is regulated by the Land Surveyor Board formed under the Licensed Land Surveyors Act 1980 (Revised Edition 1984). The Board members are appointed by His Majesty the Sultan and Yang Di-Pertuan in Council and consists of Surveyor General who shall be the chairman and not less than 4 others members. The function of the Board is to administer and enforced the Licensed Land Surveyors Act.

The Board has the power to register a Licensed Land Surveyor; to remove from the register the name of any person whose license to practice has not been renewed; to suspend such Licensed Land Surveyors; to strike off the license from the register; to impose a fine to the licensed land surveyors; and to reprimand the licensed land surveyors. A Licensed Land Surveyors may be suspended from the practice for misconduct or having convicted of criminal offence for a period not exceeding 3 years.

The day-to-day administration of the Board is conducted by the Surveyor General who acts as the Registrar of Licensed Land Surveyors. The Surveyor General as the registrar keeps the register of the Licensed Land Surveyors, which includes any cancellation, suspension or removal of any license to practice.

There are few other laws that affect the practice of land surveying in Brunei Darussalam, including Land Acquisition Act Cap 41; Land Acquisition (Amendment) Act; Land Code Cap 40; Town and Country Planning (Development Control) Order, 1972 Town and Country Planning Regulations No. 1 : Control of Sub-Division and Consolidation of Licensed Land Surveyors.

3.2.2. Professional Association

The main professional association for surveying professionals in Brunei Darussalam is the Brunei Instituition of Geomatic (BIG) which is recognized by the Land Surveyors Board. BIG was established in 2003 and its membership, which is voluntary, comprised of geomatics practitioners in Brunei. BIG has about 52 members comprising of members from the public and the private sectors.

3.2.3. Qualifying as a Surveyor

To qualify as Licensed Land Surveyor, an applicant must be at least attained the age of 21 years old; of the good character; has passed a professional examination recognized by the Board; and a member of one of the Professional Body accepted to the Board. The applicant must also show evidence of the previous professional practice in title survey either in Brunei Darussalam or a state or Territory operating a similar title system.

The applicant must have had professional education from a university of college with a first degree or post-graduate (at Master's level) degree in Surveying, Geomatics, Mapping Science, GIS, Photogrammetry, Remote Sensing, Hydrography and any other qualifications acceptable to the Board and National Accreditation Council.

At the time of writing, qualifications recognized by the Land Surveyors Board include:

a. Degree of Bachelor in Surveying conferred by an Australian or New Zealand university or institute of technology;
b. Diploma in Land Surveying from Australia or New Zealand acceptable by the Board of Surveyors of Australia and New Zealand;
c. Final Examination (Land Surveying) of the Royal Institution of Chartered Surveyors of the United Kingdom;
d. Land Surveyors Examination of Australia and New Zealand; and
e. Any other qualifications acceptable to the Board as equivalent to one of the above.

Although no institution of higher education of higher education in Brunei Darussalam offers degree courses for land surveying, programme up to technician level is currently provided in Nakhoda Ragam Vocational School.

3.2.4. Setting-up a Surveying Practice

Once a surveyor has passed the necessary examination, the Registrar of the Land Surveyor may issue a licence to practice, which is valid from the date of issue to the end of the calendar year. Licences are only issued to Brunei nationals, permanent residents and foreigners having the qualifications as Licensed Land Surveyors.

It is a requirement of the land that a Licensed Land Surveyor shall not employ more than 4 survey technicians at any time. Every survey technician employed by a Licensed Land Surveyor shall possess education qualifications and experience acceptable to the Land Surveyor Board and shall be registered with the Land Surveyor Board by the Licensed Land Surveyor who employed the survey technician.

A License Land Surveyor may practice through a corporate body. A corporate body must have at least 2 directors and one of the directors or two if there are more two directors shall be ordinarily resident in Brunei Darussalam.

Licensed Land Surveyors who are foreign nationals are required to obtain an Employment Visa from the Department of Immigration and National Registration to take up employment in Brunei Darussalam. An application for an Employment Visa may be lodged either by the sponsor or employer of the foreign nationals.

3.3. Cambodia

3.3.1. Laws and Regulations

The surveying profession in Cambodia covers cadastral surveying; geodetic surveying and mapping; and surveying related activities within civil engineering.

The General Department of Cadastre and Geography (GDCG) of the Ministry of Land Management, Urban Planning and Construction (MLMUPC) is responsible for geodetic and cadastral surveying and mapping. MLMUPC is also an affiliate member of FIG since 2001.

3.3.2. Professional Association

There is no profession association for cadastral surveyors in Cambodia yet. However, the Board of Engineers Cambodia (BEC), derived from The Engineering Institution of Cambodia (EIC) has a committee on committee on Topographical Survey and Cadastre, which has about 20 members.

3.3.3. Qualifying as a Surveyor

At present, Cambodia does not have any qualification system for professional surveyor or to license a professional surveyor and a surveying company. The Government is still discussing specific requirements to introduce a qualification system for surveyors through a draft law on Surveying and Mapping. To encourage rapid development in the private surveying activities, a draft sub-decree has been drafted and pending approval by the Council of Ministers. According to this draft sub-decree, a person seeking to obtain a surveyor certificate would have to obtain a suitable degree with two (2) years minimum experience. The certificate will be valid for five (5) years.

An aspiring surveyor in Cambodia may undergo a Bachelor degree course at the Land Management and Administration Faculty at the Royal Agriculture University in Phnom Penh. The degree course covers several important subjects such as ecological, economic and social aspect of land management; legal aspect such as land rights, land law and land policy; technical methods needed for surveying, land administration and land information management; financial issues related to land such as land taxation; land management such as urban and rural land use planning; and development.

3.3.4. Setting-up a Surveying Practice

A surveyor intending to conduct private surveying practice may set-up a company through the commercial registration at the Ministry of Commerce and to apply for license from the MLMUPC. To obtain a licence, the company must have a head of technical affairs who is a surveyor with a minimum of three (3) years professional experience. Both the company's owners and the head of technical affairs must be Cambodian nationals. The company must also make a deposit or bond according to the type of activities it applies for, which is normally about USD 2,500. The licence will be valid for 3 years.

Private sector surveyors are free to conduct any surveying activities apart from military mapping which is conducted by the Cambodian Ministry of Defence and cadastral surveying which can only be performed by Government surveyors and companies hired by the Government.

3.4. Indonesia

3.4.1. Laws and Regulations

The surveying profession in Indonesia is governed by the Geospatial Information Agency (Badan Informasi Geopasial, BIG). Surveying professionals will be certified by independent boards accredited by Geospatial Information Service Development Board (LPJIG).

In carrying out their practice, surveying professionals are required to take into account several laws and regulations, namely Act Nr. 4/2011 on Geospatial Information; Act Nr. 21/2013 on Outer Space; Act Nr. 5/1960 on Basic Regulations on Agrarian Principles; and Presidential Decree No. 8/ 2012 on the Indonesian National Qualifications Framework (*Kerangka Kualifikasi Nasional Indonesia-KKNI*)[30].

Act Nr. 4/ 2011 on Geospatial Information mandates BIG as the only national body to establish basic geospatial information or topographic information. The Presidential decree Nr. 8/ 2012 provides a general framework for the qualification system in Indonesia.

Surveying profession in Indonesia generally covers topographic surveying for the purpose of producing base geospatial information; geodetic surveying; hydrography; thematic survey (surveying carried out for producing base thematic geospatial information): geographical names; geomorphology surveying; quantity surveying; oceanographic surveying; hydrology surveying; cadastral and land administration surveying; engineering and construction surveying; geological and geophysical surveying; biotic and abiotic resources survey; photogrammetry (aerial, terrestrial, and close range); remote sensing; geographic information system; and cartography (topographic map, and thematic map). Some of the above fields have had their Unit of Competence under BIG, while others are still in progress.

BIG is also responsible for survey and mapping activities for geodetic reference system, base maps, and integration of thematic maps. In addition, the National Land Agency (BPN) administers and maps land parcel, land use, land valuation, land tenure, and land rights. Indonesian military is responsible to conduct survey and mapping specifically for military purposes. Other thematic survey and mapping activities are the responsibility of some ministries and governmental institutions specified by their national duties.

Indonesian law also requires any analysis of geospatial data to be performed in Indonesia. A special permission from BIG is required to analyse any geospatial data abroad.

3.4.2. Professional Associations

A number of surveying-related professional organisations exist in Indonesia. These associations play an important role for all survey and mapping professions in Indonesia.

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[30] In Indonesia, a practicing surveyor may also pay attention to the following laws: Act Nr. 9/1992 (Immigration); Act Nr. 20/2000 (Education); Act Nr. 13/2003 (Manpower); Act Nr. 28/2007 (Taxation); Act Nr. 12/2012 on Higher Education; Presidential Decree Nr. 70/2012 (Procurement Procedures); Ministerial regulation Nr. 3/1997 on implementation of Government regulation Nr. 24/1997; Government Regulation Nr. 24/1997 on Land Registration; Presidential Decree Nr. 63/2013 on National Land Agency; Regulation of The Head of National Land Agency Nr. 9/2013 on Licensing Surveyor; Regulation of The Minister of Manpower and Transmigration Nr. 12/2013 on Procedures for the Use of Foreign Labour; Regulation of The Minister of Manpower and Transmigration Nr. 5/2012 on National Competency Standards of Work System; Regulation of The Minister of Manpower and Transmigration Nr. 8/2012 on Procedure of Establishment of National Competency Standards of Work; and Regulation of The Head of Geospatial Information Agency Nr. 11/2013 on Certification System in Geospatial Information.

Some of the professional associations provide professional certification to members including the Indonesian Surveyor Association (ISI), the Indonesian Geomatics Board (DGI), the Association of Indonesian Geophysicists (HAGI) and the Indonesia Geologist Association (IAGI).

Professional associations that are in the progress in providing certifications include the Indonesian Society for Remote Sensing (ISRS/MAPIN), the Indonesian Cartographic Association (AKI), the Indonesian Geographical Society (IGI), the Association of Indonesian Mining Professionals (Perhapi), and the Association of Surveying and Mapping Enterprises for Geospatial Information (APSPIG).

Professional associations may apply to be a professional certification agency to the accreditation body acknowledged by the government namely the National Professional Certification Agency (BNSP) for certifying professional in general, under the coordination of the Ministry of Manpower and Transmigration; National Construction Services Development Board (LPJKN) for certifying engineers under the coordination of the Ministry of Public Works; and the National Accreditation Committee (KAN) under the coordination of the National Standardization Agency (BSN). Hydrographic surveying professionals are certified by IHO (International Hydrographic Organization), after getting an approval from Dishidros (Hydro-oceanographic Office).

3.4.3. Qualifying as a Surveyor

IG and the Ministry of Manpower and Transmigration have just issued the Indonesian National Competency Standards of Work (SKKNI).

Competencies in SKKNI include terrestrial survey, hydrography, photogrammetry, remote sensing, geographic information system and cartography. Anyone who intends to be a surveying professional in Indonesia must have sufficient knowledge, skill, and attitude of surveying that meet the standards of qualification regulated in SKKNI. The applicant must pass the competency test with respect to the level of expertise sought.

There are some universities that offer Surveying and related programs such as Geodesy/ Geomatics, Geography, Geology, and Geophysics, Marine, Civil, Agriculture, Forestry, Planology, Informatics, and Biology. There are also a number of High Schools offering Survey and Mapping studies.

3.4.4. Setting-up a Surveying Practice

As provided by the Act Nr.4/2011, the surveying profession certification will be governed by independent accreditation body acknowledged by BIG. For cadastral purposes, cadastral surveyors must obtain license issued by the National Land Agency (BPN).

Firms and companies providing surveying services are required to obtain official corporate license in geospatial, along with certification for their personnel from a body accredited by BIG.

In some circumstances, surveyors will need to comply with the Government Regulation Number 70 /2012 for all government projects to be carried out by professional firms that employ professional workers.

A foreign surveyor may work in Indonesia after obtaining permission issued by the Ministry of Manpower and Transmigration upon obtaining work permit from the Indonesian Government. In certain cases, for example in research purposes, foreign surveyors are required to obtain permission from the Indonesian Institute of Science (LIPI).

Under the Indonesian immigration rules, normally only directors, managers and technical experts/advisors are allowed to stay for two years, which could be extended for a maximum of two times of two years extension. Manager and technical experts are allowed to be extended based on an economic needs test. Any foreign workers providing services are subject to charges levied by the Governments Labour Laws and Regulations.

3.5. Lao PDR

3.5.1. Laws and Regulations

In Lao PDR, surveying and mapping activities involve topographic mapping; geodetic surveying; photogrammetric mapping; cartography and map reproduction; Geographic Information Systems (GIS); and aerial photography.

The main Government agency in surveying and mapping is the National Geographic Department at the Ministry of Home Affairs. Other relevant departments include Survey and Mapping Center (Ministry of Home Affairs); Land Department (Ministry of Natural Resource and Environment); Department of Geology and Mines (Ministry of Natural Resource and Environment); Department of National Border and Mapping (Ministry of Defense); National Border Committee (Ministry of Foreign Affairs); Forest Inventory Unit, (Ministry of Agriculture and Forestry); Department of Roads and Bridges, Housing and Urban Planning Department; and Ministry of Public Works and Transportation (MPWT).

At the time of writing, Lao PDR does not have any law and regulation governing the surveying profession. Lao PDR is planning to have the relevant law soon. As such, surveying professional practice is governed by the rules issued by the respective Government agencies.

However, surveying activities are mainly governed by the Decree on Surveying, Aerial Photography and Mapping to Govern Surveying Activities in the Territory of Lao PDR No. 330/GOL (18 September 2014). Under the Decree, surveying is defined as *"a science that relevant to detailed data gathering by measuring on the ground surface for making plans or maps".*

The Decree further states that any persons including government organisations, local institutions, individuals and international organisations must obtain an approval from the Government through the National Geographic Department prior to conducting surveys and mapping activities. The conduct of the survey must involve the presence of technicians from the National Geographic Department.

3.5.2. Qualifying as a Surveyor

Individual land surveying practitioner is not allowed to practise the profession in Lao PDR unless he is employed by a Consulting Firm or a Surveying Company.

To be admitted as a Surveyor and Mapping Engineer, the applicant must be a graduate in Survey and Mapping or Land Administration, with a post-graduate education if possible. The education must not be less than 5 years of professional education (after graduated from upper secondary school) and a further 6 months of practice for Mapping or Land Administration engineer. In the alternative, the applicant may have 4 years of professional education (after graduated from upper secondary school) and a further 6 months of practice for Mapping or Land Management engineer; or 2 years professional education (after being graduated from upper secondary school) and a further 6 months of practice for Technician or Surveyor.

At the present time, Lao PDR does not impose any prerequisite experience or practice to be admitted as Surveyor and Mapping or Land Administration engineer. Lao PDR also does not impose any requirement for language skill as a condition to be a Surveyor and Mapping or Land Administration engineer.

3.5.3. Setting-up a Surveying Practice

A professional surveyor may set up a surveying practice in any legal form. Natural persons may carry out professional services on behalf of the firm, but not as surveyor if they are not surveyor themselves. At the time of writing, Lao PDR does not impose any restriction on foreign firms employing local surveying professionals.

In order to practise in Lao PDR, foreign surveying professionals may set up a consulting or surveying firm and should register and apply for business licence from the relevant authorities. Foreign professionals setting-up commercial presence in Lao PDR may also require approval from the Foreign Investment Management Committee. The terms of operations of an enterprise with foreign owned capital and of a business cooperation contract shall be specified in the investment licence of each project.

Entry and stay of professionals are subject to Immigration and labour regulations. Endorsement from the respective departmental authorities is also required. Foreign enterprises have the right to employ skilled and expert foreign personnel when necessary and with the approval of the competent authority of the Government of the Lao PDR. In addition, foreign investors and/or service supplies have an obligation to upgrade the skills of their Lao employees.

3.6. Malaysia

3.6.1. Laws and Regulations

The Land Surveyors Board, established under the Licensed Land Surveyors Act 1958 (Act 458), is the main authority governing Licensed Land Surveyors in the Peninsular Malaysia. The Board regulates and controls the licensing of land surveyors; provides leadership in the upholding and advancement of the survey and mapping profession; keeps and maintains a register of land surveyors; conducts examinations for persons who desire to register with the Board; approves or rejects application for registration; and exercises disciplinary control in accordance with the provisions of the Act.

Land surveyors in Sabah are regulated by the Sabah Surveyors Board and land surveyors in Sarawak are regulated by the Land Surveyors Board of Sarawak.

3.6.2. Professional Associations

The Royal Institution of Surveyors, Malaysia (RISM) is the main professional organisation representing the land surveying profession in Malaysia. Memberships of RISM are open to both the government and private sectors. RISM consists of 4 main divisions, namely those of geomatic and land surveying, property management, valuation and estate agency surveying, quantity surveying and building surveyors.

Apart from that, licensed land surveyors have formed their own association known as the Association of Authorised Land Surveyors (PEJUTA) for Peninsular Malaysia, Association of Registered Land Surveyors (SAJUTA) for Sabah and Association of Chartered Land Surveyors Sarawak (ACLASS) for Sarawak. The associations look after the professionalism of licensed land surveyors and the improvement of their surveying services.

3.6.3. Qualifying as a Surveyor

Land surveyors are required by law to be licensed by the respective Land Surveyors Board as discussed above. Those who wish to be registered as land surveyors in Sabah and Sarawak are required to fulfil other residential requirements imposed by the two States.

To obtain admission into the Register of Licensed Land Surveyors, one must be a citizen of Malaysia, of good character, 21 or more years of age, has passed all professional and competency examinations, has the required period of practical training, is not under any disability, and has paid the required registration fee.

Government surveyors, as long as they are employees of the Government, are not issued with licences, but they can perform cadastral survey work required by the Government under the overall supervision of the Director General of Survey and Mapping of the Ministry of Natural Resources and the Environment (JUPEM).

The professional surveyor is required to undergo and receive an effective and proper formal surveying education in a tertiary institution. The Land Surveyor Board accepts any creditable survey degree qualification from local and overseas institutions or universities, subject to a detailed consideration of their syllabus, lecture times and practical training (credit hours) and duration of the program before any recognition is given.

Recognised university degrees stated in the Land Surveyors Regulation 2011 include:

a. Bachelor of Surveying (Land), Bachelor of Geomatic Engineering, Universiti Teknologi Malaysia, Bachelor of Science in Geomatic and Surveying, Universiti Technology MARA;
b. Bachelor of Surveying, University of Southern Queensland, University of New South Wales, University of Melbourne, University of South Australia, University of Tasmania; all in Australia;
c. Bachelor of Science in Engineering (Surveying Engineering), University of New Brunswick, Canada;
d. Bachelor of Science, Surveying Science, (Honours), University of Newcastle-upon-Tyne; Bachelor of Science, Surveying and Mapping Sciences, (Honours), East London University (formerly known as North East London Polytechnic); Associate of the Royal Institution of Chartered Surveyors as recognised until the 31st day of December 1983.

The competency examinations referred above include:

1. Physics. The subject generally as contained in any good elementary textbook, with a more detailed knowledge of the laws underlying the construction and use of surveying

instruments, e.g. the pressure of liquids and gases as affecting the barometer, thermometer and level; the allowance to be made for the effects of heat in the practical work of the licensed land surveyor; the reflection and refraction of light, lenses, mirrors; terrestrial magnetism and variation of the compass.

2. Computations A including (a) problems in distance measurement with tapes, including the determination of corrections; (b) reduction of traverses and co-ordinates; (c) mensuration of surfaces and solids; (d) calculations for circular and parabolic curves and road secants; and (e) calculations of areas.
3. Engineering surveying A including (a) levelling, contouring, tacheometry, barometric heights; (b) earthworks, quantities, prismoidal formula, mass diagram. (c) Locating, grading, setting out of roads and railways.
4. Land utilisation including (a) elementary geology, classification of rocks, (b) principles of afforestation, economic values of timbers, (c) soil erosion and (c) Soil erosion and conservation measures, soil classification, (d) Water conservation, river control, drainage and irrigation, (e) Land utilisation surveys.
5. Town and country planning including (a) Principles and practice of planning and (b) Laws and regulations affecting planning in the States of Malaya (Peninsular Malaysia)
6. Computations B including computations in plane surveying, resections, tacheometry, mining, surveying, adjustment of discrepancies in surveys.
7. Engineering surveying B including (a) Hydraulics, stream gauging, run-off and flood discharge, flow in pipes and channels, (b) Hydrographic surveying, determination of Mean Sea Level, (c) Precise levelling, and (d) Circular, parabolic and transition curves for highways and railways.
8. Topographical mapping including types of maps and charts, scales, grids, graticules, conventional, signs, sheet systems, topographical instruments and methods, plane tabling, control surveys, map compilation and reproduction.
9. Photogrammetry including flying specifications, aerial cameras, interpretation of the aerial photographs, geometry of the aerial photograph, relief and tilt displacements, stereoscopy, parallax measurements, methods of air photo mapping, rectification of photos, mosaics, ground control methods, plotting machines and equipment.
10. Astronomy including spherical trigonometry, determination of azimuth, latitude, time and longitude, effects of errors, use of Star Almanac for Land Surveyors and Nautical Almanac.
11. Geodesy including (a) Triangulation and baselines, (b) Computations on the spheroid, (c) Survey adjustments and least squares, (d) Map projections and (e) Elements of gravity surveys and magnetic surveys.
12. Land valuation including general principles of valuation of land. Practical details of compensation for acquisition and valuation in the States of Malaya.
13. Land tenure including the evolution, principles and practice of land tenure and detailed knowledge of tenure systems in the States of Malaya.
14. Laws and regulations including laws and regulations relating to land and surveys in the States of Malaya.

3.6.4. Setting-up a Surveying Practice

A license to practise is issued annually to a surveyor whose name appears on the Register. Any licensed land surveyor who has not renewed his licence before the 1st February of each year will be removed from the Register, which could be restored upon payment of registration and other fees.

Currently there is no specific requirement of registration of firms with the Board but all practising surveyors are required to seek the approval of the Professional Registration/

Regulatory Authorities his or her style and manner (i.e. name and either as sole practitioners or in partnership) of practice from the Board.

Foreign professionals require employment pass or professional visit pass, depending on the circumstances. The Professional Visit Pass is issued to foreigners employed by an overseas company but working with a company in Malaysia. This pass is normally appropriate for technical experts and trainees. The Professional Pass is normally valid for short periods of around six months. An employment pass applies to those seeking to work in Malaysia and who have specific skills, generally in technical or managerial positions. It is usually issued for a minimum period of two years.

3.7. Myanmar

3.7.1. Laws and Regulations

In Myanmar, surveying and mapping comprises of topographic mapping; geodetic surveying; cadastral surveying; photogrammetric mapping; hydrographic surveying; cartography and map reproduction; and Geographic Information Systems (GIS).

Professional surveying practice and rules are governed by respective government agencies. Several government agencies are involved surveying and mapping including Survey Department; Settlement and Land Records Department; Myanmar Naval Hydrographic Centre; Map Production Unit of the Ministry of Defence; Department of Human Settlement and Housing Development; Nay Pyi Taw Capital City Development Committee; Yangon City Development Committee; and Mandalay City Development Committee.

3.7.2. Qualifying as a Surveyor

In order to qualify as a land surveyor, a person must have be a holder of a university degree in mathematics or engineering from a recognised university; and has obtained a certificate of surveying from Survey Training School (Myanmar), which is only open to Government employees.

The person applying to become a land surveyor must also undergo a 12 month full time study for higher level surveying course and 6 month full time study for basic level surveying course at the Survey Training School and a further 2 years' experience. The person must have passed an assessment by the board of departmental authorities concerned.

Land surveying activities in Myanmar are only conducted by the relevant Government departments and no private surveyors are allowed to conduct surveying practice.

3.8. The Philippines

3.8.1. Laws and Regulations

In the Philippines, geodetic engineering profession covers a wide range of activities. The activities include:

1. Geodetic surveying
2. Cadastral & property surveying
3. Engineering/construction surveys

4. Hydrographic & oceanographic surveying
5. Topographic surveying
6. Gravity survey
7. Photogrammetric survey
8. GIS/LIS
9. Geomatics
10. Mineral land and mining surveys
11. Remote sensing
12. Cartography
13. Marine cadastre
14. Land administration & management
15. Industrial and facilities/utilities survey

The main surveying profession licencing body in the Philippines is the Board for Geodetic Engineers under the (Philippines) Professional Regulatory Commission (PRC). The governing law is the Philippines Geodetic Engineering Act 1998 (Republic Act (R.A) No. 8560 as amended by the R.A. No. 9200).

In the Philippines, a surveyor is professionally referred to as a "Geodetic Engineer." This is provided for by the Republic Act No. 4374 of 1965 "An Act to Regulate the Practice of Geodetic Engineering in the Philippines", otherwise known as the "Geodetic Engineering Law". Under Act 4374, a Geodetic Engineer refers to any person who is technically and legally qualified to practice geodetic engineering. However, the Republic Act No. 8560 (approved on 13 February 1998), otherwise known as the Philippine Geodetic Engineering Act of 1998, defines a Geodetic Engineer as a natural person who has been issued a Certificate of Registration by the Board of Geodetic Engineering and has taken the Oath of Profession of Geodetic Engineers.

Government agencies involved in the practice of surveying in the Philippines include the Department of Environment and Natural Resources (DENR), Department of Public Works and Highways (DPWH), Department of Agrarian Reform (DAR), National Commission for Indigenous People) (NCIP), National Irrigation Authority (NIA), National Mapping & Resource Information Authority (NAMRIA), National Housing Authority (NHA), Department of Agriculture (DA), Department of Transportation and Communication (DOTC) and Land Registration Authority (LRA).

3.8.2. Professional Association

In the Philippines, there is only one Integrated and Accredited Professional Organization of Geodetic Engineering profession, which is the Geodetic Engineers of the Philippines, Inc. (GEPI).

3.8.3. Qualifying as a Geodetic Engineering

To practice as a geodetic engineer, a person must have been issued with a Certificate of Registration by the Board of Geodetic Engineering and has taken the Oath of Profession of Geodetic Engineers pursuant to Republic Act No. 8560.

In qualifying as a geodetic engineer in the Philippines, the person must be a citizen of the Republic of the Philippines, and have a minimum Bachelor of Science in Geodetic Engineering of 5 years duration from a duly recognised government school, academy, institute or college and university.

All applicants for registration for the practice of Geodetic Engineering shall be required to undergo and pass the written technical examination given by the Board of Geodetic Engineering and issued Professional Identification Card, a license to practice, renewable every three (3) years. A registered Geodetic Engineer is required to obtain forty five (45) Continuing Professional Development Units, which is one of the conditions in the renewal of license to practice.

The examination for Geodetic Engineering shall basically cover the following subjects:

1. Laws, Rules And Regulations: Public Land Laws, Laws on Natural Resources, Laws on Property, Land Registration Laws, Land Reform Laws, Laws on Obligations and Contracts, Professional and Ethical Practice, Rules and Regulations Governing Land Surveying, United Nations Convention on the Law of the Sea, Land Management.
2. Mathematics: Algebra, Plane and Spherical Trigonometry, Solid Geometry, Analytical Geometry, Differential and Integral Calculus, Differential Equations, Probability and Statistics, Least Squares Adjustment, Engineering Economy.
3. Theory And Practice Of Geodetic Engineering: Property Surveys, Cadastral Land Surveys, Isolated Surveys, Mineral and Mining Surveys, Topographic Surveys, Hydrographic Surveys, Photogrammetric Surveys, Engineering Surveys (route, bridge sites, parcellary, as-built, subsidence monitoring, construction and industrial), Geodetic Surveying, Global Navigation and Satellite System, Geodetic Astronomy, Geodetic Levelling.
4. Geodesy (Geometric, Physical and Satellite): Geodetic Surveying, Global Navigation Satellite Systems, Geodetic Astronomy, Geodetic Levelling, Gravity Surveys.
5. Geomatics: Photogrammetry, Cartography, Remote Sensing, Geographic Information Systems.

3.8.4. Setting-up a Geodetic Engineering Practice

The practice of Geodetic Engineering is a professional service, admission to which shall be determined upon the basis of an individual's personal qualifications, for which the Geodetic Engineer is responsible for the correctness of the survey work for which he shall be answerable therefor. Thus, only duly Registered Geodetic Engineers may organise, establish or form firms, partnerships or associations for the practice of Geodetic Engineering pursuant to the rules of the Securities and Exchange Commission.

Foreign surveyors are able to set-up practice based on reciprocal arrangements between the Philippines and the respective home country. Foreign surveying companies must possess the Special Temporary Permit issued by the Professional Regulatory Commission (PRC). Foreign surveyors and surveying companies must collaborate with other local surveyors/ surveying companies. All geodetic engineers employed by foreign surveying companies operating in the Philippines must be of the Philippines national.

Foreign geodetic engineers may also be issued a temporary licence to practise the profession provided the foreign country permits Filipino geodetic engineers to practise within its territorial limits on same basis as subjects or citizens of such foreign country.

The following rules apply to foreign surveyors who intend to work in the Philippines:

a. Upon recommendation of the concerned Professional Regulatory Board (PRB), the PRC may approve registration of and authorise issuance of certificate of registration/ license and professional identification card with or without examination to a foreigner who is registered under the laws of his country and whose certificate of registration issued therein has not been suspended or revoked.

b. The foreign surveyor seeking registration must show that requirements for registration and licensing in said foreign country are substantially the same as those required or contemplated by laws of the Philippines.
c. The Commission may also issue temporary registration to consultants in foreign funded, joint-venture or foreign assisted projects of the government or employees of the Philippines, foreign private firms or institutions pursuant to law, or health professionals engaged in humanitarian mission for a limited period of time. The responsibility to secure the special permit from the PRC lies with the agencies, organisations or individuals who seek to employ the services of the foreign geodetic engineer.
d. Under normal circumstances, foreign geodetic engineers may be admitted to the Philippines for the supply of a service after a determination of the non-availability of a person in the Philippines who is competent, able and willing, at the time of application, to perform the services for which the services of the foreign geodetic engineer is desired.

3.9. Singapore

3.9.1. Laws and Regulations

The land surveying profession in Singapore is regulated under the Land Surveyors Act ("the Act") and its subsidiary rules. The Land Surveyors Board Singapore ("LSBS") is the statutory body set up under the Land Surveyors Act to administer the Act.

Under the Act, only Registered Surveyors holding valid practising certificates are permitted to supply survey services for all types of surveys such as cadastral surveys, engineering surveys, topographical surveys, hydrographical surveys, setting out surveys, aerial surveys, satellite surveys, etc. Corporations and partnerships holding valid licences are also permitted to supply survey services.

The conduct of any hydrographic or hydrologic survey or other study of the waters and sea-bed within the territorial limits of Singapore for navigation purposes or studies of marine science and ecology is exempted from the Act. Such hydrographic or hydrologic survey is under the purview of the Maritime and Port Authority of Singapore.

As at 31.12.2013, there are 102 Registered Surveyors including 5 female Surveyors in Singapore.

3.9.2. Professional Association

The professional organisation for Registered Surveyors is the Singapore Institute of Surveyors and Valuers ("SISV").

3.9.3. Qualifying as a Surveyor

To qualify as a registered surveyor in Singapore, the person must be 21 years of age and above and has:
a. passed professional examination recognised by LSBS;
b. passed further examinations prescribed and conducted by LSBS. The further examinations consist of a written subject, Cadastral Law and 2 practical subjects on cadastral surveys of land lots and strata lots. Details of examinations are specified in Land Surveyors Rules;

c. practical experience in surveying work which comprises surveying activities in Singapore at a professional level for not less than one year obtained after he has passed the professional examination; and
d. passed a professional interview conducted by the Board to determine whether he has the aptitude and knowledge to effectively perform or engage in survey work in Singapore.

The Continuing Professional Development (CPD) programme will be one of the conditions for renewal of annual practising certificate to conduct survey work in Singapore. Registered Surveyors will be required to obtain 30 CPD units in order to have their practising certificates renewed each year.

3.9.4. Setting-up a Surveying Practice

Any corporation or partnership supplying survey services in Singapore must hold a licence issued by the LSBS. The different types of business practices include a limited corporation, unlimited corporation, partnership, and limited liability partnership. As at 31.12.2013, LSBS has granted licences to 11 limited corporations to provide survey services in Singapore.

In the case of a limited corporation applying for a licence, it must fulfil the following conditions:
a. the memorandum of association of the corporation provides that a primary object of the corporation is to supply survey services;
b. at least S$1 million of paid-up capital;
c. the articles of association of the corporation provide that a majority of the directors of the corporation shall be registered surveyors or allied professionals (i.e. professional engineers or registered architects);
d. the business of the corporation, so far as it relates to survey work in Singapore, will be under the control and management of a director of the corporation who-
    i. is a registered surveyor who has in force a practising certificate; and
    ii. is authorised under a resolution of the board of directors of the corporation to make all final survey decisions on behalf of the corporation with respect to the requirements of the Land Surveyors Act or any other law relating to the supply of survey services by the corporation; and
e. the corporation is insured against professional liability.

3.10. Thailand

3.10.1. Laws and Regulations

TThe surveying engineering profession in Thailand is regulated by the Council of Engineers (COE) under civil engineering. Whilst geodetic surveying and photogrammetry for security purposes are controlled by the Royal Thai Survey Department which is a department in the Ministry of Defence, cadastral surveying is controlled by the Land Department, Ministry of Interiors.

The law regulating the engineering professionals in Thailand is the Engineers Act BE 2542 (the Engineers Act). The Engineers Act provides for the registration of professional engineers, regulates the qualifications and conducts of the professional engineers and regulates corporations which supply professional engineering services in Thailand.

Professional surveyors who are also civil engineers in Thailand are governed by the Council of Engineers (COE), which registers professional engineers and set the standards for professional engineers in Thailand. The COE comprises of 15 Committee Members elected from and by the ordinary members of the Council and 5 members appointed from the ordinary members by the Council of Ministers.

3.10.2. Professional Associations

There are a few professional associations for surveying engineers in Thailand including Engineering Institute of Thailand, Surveying and Mapping Association of Thailand and Consulting Engineer Association of Thailand. Memberships in the professional associations are not compulsory.

3.10.3. Core Competency to Qualify as a Civil Engineer with Specialisation in Surveying

The practice of engineering including civil engineering with specialisation in engineering in Thailand is regulated by various legislative procedures. The legislative body admits members to the profession and governs their practices. In addition to the academic requirements for licensee there are requirements for a supervised period of engineering experience, the ability to communicate effectively in the language of business of the jurisdiction, successful completion of a professional practice examination, validation of experience and ability through structured training programmes.

To become a registered engineer in Thailand, one must be of at least 18 years old and must be registered as an ordinary member of the COE. Ordinary memberships of COE are open to citizens of Thailand only.

There are three levels of regulated engineering profession in Thailand. They are Associate Engineer; Professional Engineer; and Senior Engineer.

To become an Associate Engineer, a person must have a Bachelor Engineering degree accredited by the COE. The degree must be 4-year degree program offered by accredited universities. However, the Survey Engineering Programs at the Department of Survey Engineering Chulalongkorn University and the Chulachomkao Military Academy are at present not recognised by the COE as they do not offer all civil engineering courses required by the Council of Engineers.

An Associate Engineer's practice will be limited as specified in the relevant permit such as with respect to the area of practice and the size of work.

To become a Professional Engineer, a person must be an Associate Engineer with at least 3 years' experience after becoming an Associate Engineer with sufficient experience and continuing professional development. The experience must be certified by a Professional Engineer or Senior Professional Engineer. Professional Engineer may practice engineering without limitation, but may not provide advice in engineering.

To become a Senior Professional Engineer, a person must be a Professional Engineer with at least 5 years' experience as a Professional Engineer with sufficient experience and continuing professional development. The experience must be certified by another Senior Professional Engineer. A Senior Professional Engineer may practice and provide advice in engineering without limitation.

A Foreign Engineer may apply to become an Adjunct Engineer, who will be subject to residency requirement of a minimum six months visa for a stay in the country. An Adjunct Engineer must past all tests which are conducted in Thai language.

Individuals who have not completed an accredited engineering program can meet the academic requirement through an examination program. Upon application to the COE, an individual's academic qualifications will be assessed and a specific examination program assigned based on the Committee of Engineering Qualification (BEQ). Upon successful completion of the examination program, the candidate is deemed to have satisfied the academic qualification requirement. The engineering examination would cover the Basic Engineering for all discipline and the Specific Engineering for each engineering disciplines. All applicants are required to have a minimum of three years of acceptable engineering experience prior to registration.

Acceptable engineering experience must include the application of theory and experience in broad areas of practical experience, management, communication and the social implications of engineering. The engineering experience must relate to the jurisdiction process the Code of Ethics, the Code of Conducts, and the Code of Practices.

The engineering experience must be obtained in Thailand or in a Thai environment for at least two years. There must be at least one reference from a practising professional engineer or a senior engineer who is familiar with details of the candidate's work for the experience claimed. The immediate or direct supervisor of the candidate's present and past employers are the most suitable referees.

For larger projects or multiple engineering works, referees should provide information regarding the candidate's technical competence in the application of engineering principles and theory, ability to communicate, ability to work on a team, ability to exercise professional judgment, and whether the candidate is of good character and reputed as demonstrated through personal attributes such as integrity and responsibility.

All candidates for registration are required to successfully complete an examination to confirm that they have sufficient knowledge of the ethical considerations and obligations that accompany the privileges of professional status, as well as the legal concepts relevant to being professional engineers.

The Committee of Professional Practice Qualification (BPQ) conducts the assessment mechanism for independent practice. A supplementary report and interview are in co-operated in the assessment process.

For an engineering experience to be considered satisfactory, the record must show that it meets the basic requirements for Profession Practical Experience and conforms to the Code of Conduct. The experience is to be recorded in a report or a logbook and certified by the direct supervisor or a senior registered engineer.

To qualify for a professional surveying practice, the applicants will have to go through certain procedure set by the COE regulations:

a. The COE will appoint a sub-committee to review engineering practical experiences including the amount of work, description of engineering practice and the performance. They have to satisfy the required conduct, structured training and some additional conditions as specified by each discipline.
b. The applicants who have demonstrated that their professional practical experience has satisfied the basic requirements are partially approved by the sub-committee to take the

written examination which will be specified to the applicants. The passing grade for the examination is 60% for each subject.

c. The written examination for engineering practical experience concerns current engineering technology and practical matters, covering two categories. The first category, which is compulsory, covers core subjects, mainly basic requirement for the discipline and specific engineering for the sub-discipline. The second category cover elective subjects for individual sub – discipline.

The applicants who pass the written examination are required to sit for oral examination, which is conducted through an interview. During oral examination, candidates may be asked questions relating to the practical experiences and professional development. Candidates may be examined on:

- Responsibility in the engineering work;
- Skill in engineering discipline in relation to the Code of Conducts and the Code of Practices;
- Practical experiences in solving problems in engineering work, management skill, communication skill and jurisdiction process;
- Professional development from practical experience focusing on the scheme of technology transfer for young engineer and the society; and
- Public safety and the code of ethics.

3.10.4. Core Competency for Setting-up a Surveying Practice

Under the Private Land Survey Practitioner Act B.E. 2535 (1992), land surveying services suppliers in cadastral survey must be of Thai nationals or Thai juridical persons. Under the same Act, a surveying technician with experiences as stated in the Act may also register as private surveyor.

In setting-up a surveying juridical person, Thailand states that foreign equity participation must be less than 50 percent and the number of foreign shareholders must be less than 50 percent of the total number of shareholders. Companies that wish to practise surveying must have a CEO who is also a registered engineer or surveyor and half of its directors or company executives are COE registered engineers/ surveyors.

Foreign surveyors who want to provide surveying services in Thailand is required to obtain proper visa (from the Ministry of Foreign Affairs), work permit (from the Ministry of Labor), permit to conduct business by a foreigner (from the Ministry of Commerce) and permit to remit foreign currencies into and out of the kingdom (from the Bank of Thailand).

3.11. Viet Nam

3.11.1. Laws and Regulations

The surveying profession in Viet Nam covers cadastral land surveying; cartography; remote sensing; engineering and surveying; mining and Construction surveying; and land management. In Viet Nam, defence related survey activities are not open to private surveyors as they are handled by the Ministry of Defence.

The law governing the surveying profession in Viet Nam is the Decree No. 25/2008/ND-CP (Defining the Functions, Tasks, Powers and Organisational Structure of the Ministry of

Natural Resources and the Environment). It is expected that a Land Surveyors Act will be formalised in 2015 to improve regulations of the surveying profession in Viet Nam

The Department of Survey and Mapping under the Ministry of Natural Resources and the Environment regulates the surveying profession in Viet Nam. There is no known professional association of surveyors in Viet Nam.

3.11.2. Qualifying as a Surveyor

There are 3 levels of surveyors in Viet Nam, graduate surveyor, junior surveyor and high level surveyor. To qualify as a graduate surveyor the candidate must have a minimum of 4 year surveying education. To qualify as a junior surveyor, a graduate surveyor requires a minimum of 3 years professional surveying experience and has passed a government surveying examination. To qualify as a high level surveyor, a junior surveyor has to accumulate a further 3 years of professional surveying experience.

3.11.3. Setting-up a Surveying Practice

Department of Surveying Viet Nam provides Surveying and Mapping licences to private companies that wish to practise surveying in Viet Nam. Circular No. 32/2010/TT-BTNMT prescribes conditions, sequence, procedures and authority to grant, supplement, extent the survey-mapping licence. The circular applies to state authority in charge of the survey and mapping and any organisations or individuals who take part in topography and cartography in the territory of the Socialist Republic of Viet Nam.

Unless otherwise specified, foreign enterprises are allowed to establish commercial presence in Viet Nam in the form of business co-operation contract. Foreigners wishing to work in Viet Nam must be at least 18 years old and be healthy enough to satisfy the job requirements. Only those with high technical skills or high professional qualifications regarding service and with considerable experience may be employed.

A work permit is normally required for a foreign employee working for more than three months in Viet Nam, issued by the Department of Labour, War Invalids, and Social Affairs (DOLISA).

A work permit is not required for the following foreign employees:

1. A member or owner of a limited liability company or a member of the board of management of a shareholding company;
2. A Chief Representative Officer, Chief Project Officer, or representative of a foreign nongovernmental organisation for its operation in Viet Nam;
3. An internal transferee of a company that engages in one of 11 service sectors as stated in Viet Nam's WTO service commitments; and
4. A person providing professional and technical consultancy service or conducting other missions serving for the implementation, evaluation, and supervision of Official Development Aid programs or projects according to the agreements signed between foreign parties and the Vietnamese Government.

04.

ANALYSIS OF THE QUALIFYING AND PRACTICE REQUIREMENTS

4.1. Introduction

Chapter 3 shows that each AMS imposes different requirements and conditions for surveying professionals to qualify as professional and licensed surveyors; to set-up surveying practice; and to employ foreign surveyors. Each AMS has different tertiary education system for those aspiring to become surveying professionals. A few of the AMS do not offer any tertiary education in surveying, thus requiring those seeking to qualify as surveying professionals to undertake relevant studies abroad. The Chapter will provide detail discussion on the differences and gaps, including any gender bias, in the qualifying system for surveying profession in ASEAN.

4.2. Education and Professional Qualification System

In preparing the handbook, the authors conducted field visits and discussions with the relevant regulatory authorities and professional associations (where relevant and available) in each AMS. The authors find that each AMS has different forms of tertiary education and professional qualification systems for the surveying profession.

For example, institutions of higher educations in Brunei Darussalam and Singapore do not conduct any course relating to surveying due to small number of professional practice in surveying on these two AMS. However, institutions of higher educations in other AMS do conduct tertiary education in surveying, geodetic engineering or civil engineering with specialisation in surveying.

It is also found that there is no harmonised curriculum and minimum number of years for the tertiary education on each of the AMS. Cambodia, Lao PDR and Viet Nam are still developing their education system for the surveying profession which will work towards harmonising the length of time for the degree and subjects to be offered to students.

However, the authors observed that except for Viet Nam and Lao PDR, professional regulatory authorities and professional associations in AMS provide continuous professional development programs for registered professionals in the relevant country.

The differences and similarities in the education and professional qualification system are shown in Table 1 below.

Brunei Darussalam	Brunei Darussalam universities do not offer any university degree in the field of land surveying. Students will have to enrol in universities in Malaysia, Canada, UK and other countries. Brunei Land Surveyors Board however maintains a list of foreign recognised qualifications.
Indonesia	In Indonesia, several universities and colleges offer geodetics and mapping qualifications across Indonesia. In addition, various professional associations conduct assessment and CPD.
Cambodia	The only university offering surveying tertiary education is at Land Management and Administration Faculty in the Royal Agriculture University in Phnom Penh. It offers a four year Bachelor degree program.

Lao PDR	The National University of Laos offers degree in Survey, mapping and land management. Lao PDR also accepts foreign degrees.
Malaysia	In Malaysia, Universiti Teknologi Malaysia and or Universiti Teknologi MARA offer structured programs in land surveying education. At the same time professional associations also offer and conduct structured training and CPD activities.
Myanmar	Universities in Myanmar offer degree courses in mathematics and engineering which are the prerequisite qualifications towards a career in land surveying. In addition an aspiring surveying professional is required to obtain a certificate of surveying from Survey Training School of Myanmar which is only open to government employees.
The Philippines	Many universities in the Philippines offer a 5-year Bachelor of Science in Geodetic Engineering, which is a prerequisite to sitting the licensure examinations by the Professional Regulatory Board of Geodetic Engineering. All Geodetic Engineers are required to attend yearly CPD trainings.
Singapore	Singapore universities do not offer any degree in the field of mapping and surveying. However, the Land Surveyors Board maintains a list of foreign surveying degrees accepted for registration. The Land Surveyors Board and the professional association do offer CPD activities and trainings.
Thailand	In Thailand, candidates need to undergo a 4-year degree program in surveying and mapping offered by universities including the Department of Survey Engineering, Faculty of Engineering, Chulalongkorn University; and the Chulachomkao Military Academy (open to Military only). The Council of Engineers does not recognise the Survey Engineering Programs at the Department of Survey Engineering Chulalongkorn University and the Chulachomkao Military Academy as they do not offer all the required civil engineering courses. The Royal Thai Survey Department runs the Royal Thai Survey School in Phra Nakhon, Thailand which offer diploma level courses.
Viet Nam	Several universities in Viet Nam offer either 4 year or 5 year Bachelor degree in surveying, mapping, geometic, photogrametry, land management, remote sensing. However there is no professional association or dedicated professional board that offers continuous professional support in the field.

Table 1: Educational Requirements

4.3. Gaps and Shortfalls in the Professional Qualification System

This section examines gaps and shortfalls in the professional administration and qualification systems in the surveying profession in AMS. Discussions will focus on the gaps and shortfalls in the regulatory authorities, graduate requirement, entrance examinations and the minimum professional experience.

1. Authorities

In most AMS, the surveying profession is governed by professional regulatory authorities established or mandated by law. The nature of the professional regulatory authorities depends upon the classification and treatment of the surveying profession in the AMS.

Thailand and the Philippines classify surveying as part of engineering, in the case of Thailand, it forms part of the civil engineering and is governed by the COE and in the Philippines it is classified as geodetic engineering and governed by the Board of Geodetic Engineering.

Brunei Darussalam, Malaysia and Singapore have the Land Surveyors Board in place. In the case of Malaysia, there are 3 separate Land Surveyor Boards, one each for the Peninsular Malaysia, Sabah and Sarawak. Land surveyors in Cambodia are governed by the Department of Cadastre and Geography of the Ministry of Land Management, Urban Planning and Construction; and in Lao PDR it is under the purview of the National Geographic Department.

In Indonesia, although the main regulatory authority is BIG, the accreditation and certification of surveyors are also conducted by accredited professional associations. In addition, surveying professionals involved in the construction work are required to be licensed by the LPJK. In Myanmar, surveying profession is not open to private practice by the Board of Survey Department.

2. Minimum Experience

The minimum experience required by the surveying profession professional regulatory authorities varies between ASM, mainly between 1 year and 3 years (as in the case of Viet Nam). Brunei Darussalam, however, does not state the minimum experience requirement for an applicant to be accepted as a Licenced Land Surveyor. Lao PDR will impose a minimum of 1 year experience. Although Singapore also imposes a minimum of 1 year experience, it requires the experience to include cadastral practice. In Singapore, if the candidate does not have the cadastral practice experience, he will not be allowed to sit for the examinations regardless of his length of experience. Cambodia requires a minimum of 2 years' experience and Malaysia requires 24 months post-graduate structured training.

3. Professional Entrance Examination

There are also major differences in the professional examination procedures in the AMS. For example, Brunei Darussalam, Indonesia, Cambodia, Malaysia and Thailand impose oral and written examinations, whereas Singapore imposes practical, written and oral examinations. Myanmar imposes 18 months further course. However, Lao PDR and Viet Nam do not impose any professional examination requirement.

4.4. Equal Opportunities

From our field visits and meetings with the professional regulatory authorities and professional associations, it is safe to say that professional education and qualification

system in AMS do not discriminate against any gender or any race or ethnic group. Membership of professional organisations is open to all races and genders and no AMS have any measures that discriminate any gender or race from entering the profession.

Gender composition of the surveying profession is shown in the Table below:

ASEAN MEMBER STATES	MEMBERSHIP COMPOSITION
Brunei Darussalam	22 registered professional surveyors including 1 female 14 other surveyors with 10 being in the Survey Department, 1 in education and 3 working in the oil and gas sector.
Cambodia	17% of graduated student of FLMLA are female
Indonesia	30% female
Lao PDR	About 100 graduates each year, with half being female.
Malaysia	10% of all student numbers are women
Myanmar	No data. Government surveyors only
The Philippines	20% female out of 9000 registered members
Singapore	102 registered members, 5% women
Thailand	No data on women surveyors
Viet Nam	1% are women

Table 2: Gender Composition in the Profession

4.5. Issues affecting Liberalisation of Surveying Services

Based on the aforementioned discussion and analysis, ASEAN and AMS will need to address several issues in order to ensure success in the liberalisation of the surveying profession.

1. **Different approaches taken by the MRAs may affect the process of integration.**
   Compared to other the MRA, on engineering and architectural services, AMS take a different approach in MRA on the surveying profession, which is a double-layered agreement providing a framework of broad principles for further bilateral and multilateral negotiations among the AMS. The onus is on the individual AMS to take the initiative to enter into an MRA with another AMS. At the time of writing, there is no bilateral MRA in the surveying profession being negotiated by the AMS.

2. **Relationship between MRA, Commercial Presence and Movement of Natural Persons**
   In the context of professional service providers in ASEAN, an MRA enables the qualifications of services suppliers recognised by the relevant authorities in their

home country to be mutually recognised by other signatory AMS. This promotes the flow of professional services providers within ASEAN, in accordance with relevant domestic rules and regulations. In addition, simple, harmonised and standardised trade instruments including MRAs are expected to reduce transaction costs. However, based on the survey, especially the AMS Schedules of Commitments under AFAS, AMS needs to address issues relating to commercial presence (Mode 3) such equity ownership and board of director requirement and cross-border movement of the professional surveyors under Mode 4.

In an ideal liberalisation scenario, recognised providers of surveying services should be able to move between AMS under Modes 3 and 4. The increase in commercial presence under Mode 3 and the movement of natural persons under Mode 4 in professional surveying services may result in an increase in intra-ASEAN investment in services, which will enhance ASEAN's attractiveness as an investment destination. An increase in intra-ASEAN investment in professional services may in turn lead to higher investment by professional service providers from outside ASEAN as a result of increased professionalism and confidence in the transparency and good governance attributes of the rules relating to professional service providers in ASEAN.

At the same time, an increased liberalisation under Mode 4 will allow greater mobility of surveyors to work across ASEAN. This will assist ASEAN to deploy talents within the region and will assist AMS who need the talents not always available locally to recruit professional surveyors from neighbouring AMS. The result is intra-ASEAN co-operation which provides greater access to expertise in surveying.

ASEAN Member States are generally well-disposed towards liberalisation of trade in services under Modes 1 (cross-border supply) and 2 (consumption abroad). However, AMS are more cautious with regard to commercial presence under Mode 3 and the temporary movement of natural persons under Mode 4. In commercial presence or Mode 3, many AMS require commercial entities of professional service providers to have a minimum of 51% shares owned by the national or permanent resident of the Member State.

At the same time, there is a need to have a minimum number of members of the board or executive committee members, who must be registered professionals in the AMS concerned. Many of the laws, rules and regulations in AMS do not provide clear guidance on the rights of professional surveyors to provide services under Mode 4, and this lack of clarity may play to the disadvantage of foreign professional service providers and deter use of agreed MRAs.

On the other hand, many of the regulators and members of the professional service providers met during the field work welcome working together with their counterparts from other ASEAN Member States. Such co-operation and collaboration lead to liberalisation in Mode 1 and Mode 4, but will have less liberalising effect on commercial presence (mode 3).

The cross-border flow of surveying professionals and surveying services is also subject to the unique and sensitive nature of some of the activities within the profession. Surveying is a very unique profession as it may involve different sub-disciplines which may vary from one AMS to another. In certain areas, surveying activities are limited to government or military surveyors. AMS may need to take into account national sensitivities and national interests in liberalising the surveying profession.

Thus, AMS may need to consider sub-activities within the surveying profession where they could liberalise and encourage the movement of natural person under Mode 4 and commercial presence under Mode 3.

3. Difference in MNP Commitments under the MNP Agreement

Movement of natural persons under Mode 4 could be facilitated under the MNP Agreement. Although a foreign surveying service provider may participate in the equity of a firm, this does not automatically entitled the equity holder to obtain the necessary immigration clearance to work in the host. At the time of writing, the MNP agreement only deals with the business travellers and intra-corporate transferees, leaving those who seek employment having to go through the normal immigration and work permit process.

In addition, business travellers and intra-corporate transferees will have to understand different levels of commitment made by AMS under the MNP Agreement. For example, Brunei Darussalam allows entry for intra-corporate transferees up to a three year period that may be extended for up to two additional years for a total term not to exceed 5 years.

In Cambodia, intra-corporate transferees are required to obtain temporary residency and work permit. Such permits are issued for 2 years and may be renewed annually up to a maximum of total 5 years. Lao PDR on the other hand imposes labour quota, where a firm may employ foreign engineers but not more that 20% of the total staff. An establishment may request for a higher quota.

In Indonesia, intra-corporate transferees namely Executive, Manager and Specialist may be granted stays for up to 2 years which can be extended for a maximum of 2 times, with each extension being up to 2 years. Any foreign natural persons supplying services are subject to charges levied by the Government. Economic needs test applies to temporary stay of manager and specialist.

Malaysia allows intra-corporate transferee executives, specialists and experts a stay of not more than 10 years. The Philippines normally allow 1 year renewable permit for intra-corporate transferees (executives, managers and specialists). Foreign engineers may be allowed to practice in the Philippines and take licensure examinations if the foreign country where the engineer is a citizen admits Filipinos to practice the same profession without restriction or by way of examinations on equal terms with foreign citizens including unconditional recognition of degrees or diplomas.

Singapore generally allows intra-corporate transferees to stay to a 2 year period that may be extended for up to 3 additional years each time for a total term not exceeding eight years. Thailand allows intra-corporate transferees temporary stay which is limited to a 1 year period and may be extended for a further three terms of not more than 1 year each. Both Singapore and Thailand do not provide any sectoral commitment.

Viet Nam grants entry and permit for intra-corporate transferees, managers, executives and specialists, for an initial period of 3 years which may be extended subject to the term of operation of those entities in the country. Viet Nam imposes conditions that at least 20% of the total number of managers, executives and specialists shall be Vietnamese nationals. However, a minimum of 3 non-Vietnamese managers, executives and specialists shall be permitted per enterprise.

4. **Different Level of Development/ Readiness**

The different level of development between AMS may affect potential uptake in mutual recognition and the readiness of the engineering service providers in undertaking cross border services. It has been discussed above that some AMS do not have or no longer offer surveying education due to lack of demand for the courses although they still need surveyors. Thus, AMS may work with each other to provide surveying education to the member states who do not offer such relevant courses at their higher education institutions.

05.

PRACTICAL RECOMMENDATIONS AND CONCLUSIONS

5.1. Practical Recommendations

Based on the above discussion, we are able to make the following recommendations:

a. ASEAN and AMS will need to find the best model to further enhance the movement of professional service providers within ASEAN. This Handbook discussed four different models of mutual recognition and the best practices could be compared with the practices in the EU/TTMRA and NAFTA models. The EU Model, on which the TTMRA is modelled, , may not be suitable for ASEAN due to the disparity and gap in the economic readiness and the competency levels of professionals across ASEAN. The TTMRA involves Australia and New Zealand, two countries sharing much the same heritage, culture, language and educational systems. The EU also involves legally binding provisions in a closely integrated market where the twin freedoms of establishment and of service provision are enshrined in a treaty that is subject to the binding decisions of a supranational court of justice.

b. ASEAN Member States are arguably closer to the model developed by Parties to the NAFTA, which groups together countries that display greater contextual heterogeneity. The NAFTA-type MRA model is already reflected in the ASEAN MRAs which adopt a sectoral approach rather than the generic approach pursued in the EU. In emulating the NAFTA model, AMS will have to allow recognised professionals to obtain work visas so long as they can first land a service contract in another AMS or work via an established presence in another AMS and possess recognised qualifications. This means that the recognition of qualifications would lead to freedom of movement under the MNP Agreement if one can find a temporary work contract in another ASEAN Member State. Thus, visa and temporary work-related arrangements should be automatic and not a hindrance to the movement of natural persons under Mode 4.

c. To encourage intra-ASEAN investment, the provision of the professional services could be linked to the liberalisation of investment under the ASEAN Comprehensive Investment Agreement (ACIA). ACIA liberalises investment in five sectors and the incidental services related to the five sectors namely manufacturing, agriculture, fishery, forestry, mining and quarrying. The surveying profession fits into most of the liberalised activities.

d. Liberalisation efforts under AFAS, through the MRA and under the ACIA should be further encouraged. Member States should further liberalise Mode 3 participation by liberalising, either through ACIA, AFAS or through autonomous liberalisation, to enhance intra-ASEAN joint ventures, merger and acquisition and commercial collaboration. Most AMS encourage collaborations but this could be enhanced by creating ASEAN-wide firms consisting of ASEAN professional service providers, owned by ASEAN professional service providers. This could be in the form of single profession or multi-practice firm.

e. Foreign ownership of professional firms in the ASEAN Member States should be re-classified in order to enhance Mode 3 investment and Mode 4 movement. There could be another category of ownership or equity categorised as “ASEAN citizens” where the firms could have a higher percentage of ASEAN citizen equity in the firms as compared to non-ASEAN ownership.

f. ASEAN and AMS may want to work on the harmonisation in some areas where possible such as the curriculum, work experience, basic training requirement, requirement for commercial presence for professional service providers and the harmonisation of the immigration rules in issuing work permits for professional service providers. The more developed AMS may want to deliver technical assistance to other AMS that require such assistance in the field of domestic regulations and providing proper curriculum for some of the professional services.

g. The various professional services regulators and the professional associations within ASEAN and AMS may want to consider enhanced collaboration among their members. A closer collaboration may lead to a higher degree of liberalisation in the future.

5.2. Conclusion

Based on the above discussion, we could conclude that all AMS have prepared frameworks for the enhancement of the liberalisation in the surveying services in ASEAN. AMS would need to start looking to entering into the MRA in order to up-take the liberalisation. AMS may need to find mutual areas of practice where they can allow foreign surveyors to contribute to the local expertise.

A higher level of integration and liberalisation may also be achieved through closer collaborations between the AMS, especially in encouraging collaborations among the relevant professionals through Mode 1 and Mode 4. At the same time, AMS should also be encouraged to increase the participation of intra-ASEAN market access and investment in the professional services through Mode 3. An improvement in the Mode 3 and Mode 4 market access will enhance the availability of technology, expertise and capital among ASEAN professionals.

Thus, the drive and the passion of the profession to achieve a higher level of integration and liberalisation in ASEAN will assist ASEAN and the AMS to achieve the ASEAN Economic Community status in 2015, which could be the beginning of a more meaningful ASEAN-wide economic integration.

***

Abbreviations

Abbreviation	Full Name
AEC	ASEAN Economic Community
AFAS	ASEAN Framework Agreement on Trade in Services
AMS	ASEAN Member State
ASEAN	The Association of Southeast Asian Nations
AQF	Australian Qualification Frameworks
ANZERTA	Australia–New Zealand Closer Economic Relations Trade Agreement
CCS	Coordinating Committee on Services of ASEAN
EC	The European Community
EU	The European Union
FIG	International Federation of Surveyors
GATS	General Agreement on Trade in Services of the WTO
MRA	Mutual Recognition Agreements
PE	Professional Engineers
PRA	Professional Regulatory Authority
TTMRA	Trans Tasmanian Mutual Recognition Agreement
UK	United Kingdom of Great Britain and Northern Ireland
UNCTAD	United Nations Conference on Trade and Development
USA	The United States of America
WTI	World Trade Institute, University of Bern
WTO	World Trade Organisation

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